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METROPOLITAN BAKERSFIELD

GENERAL PLAN

(UNINCORPORATED PLANNING AREA)

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December 3, 2002

This General Plan text, adopted by the Kern County Board of Supervisors December 3, 2002, contains changes made at that hearing. It also incorporates, as policy, mitigation measures derived from the Environmental Impact Report.

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CHAPTER I - INTRODUCTION

ROLE AND PURPOSE OF THE GENERAL PLAN

The general plan is a policy document designed to give long range guidance to those making decisions affecting the future character of the Metropolitan Bakersfield planning area. It represents the official statement of the community's physical development as well as its economic, social and environmental goals. The general plan also acts to clarify and articulate the relationship and intentions of local government to the rights and expectations of the general public, property owners and prospective investors. Through the plan, the local jurisdiction can inform these groups of its goals, policies and development standards; thereby communicating what must be done to meet the objectives of the (general) plan.

ORGANIZATION AND CONTENT OF THE GENERAL PLAN

Section 65300 of California Planning and Zoning Law requires each county and city jurisdiction to adopt a comprehensive, long term general plan for its development. It must contain seven principal elements including Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. The Metropolitan Bakersfield General Plan contains each of these elements, and in addition has incorporated two optional elements to reflect the specific needs and objectives of the planning area: Public Services and Facilities, and Parks.

Chapter "reservations" for the Housing Element and Kern River Plan Element are also included. The Housing Element, by legislative mandate, must be updated in 2002. The Kern River Plan Element, jointly adopted by the City and County in 1985, is a separate plan element and is incorporated by reference.

THE YEAR 2001 UPDATE PROCESS

As localities and their resources are ever changing, it is periodically necessary to update and revise the general plan. The state recommends that the entire plan be thoroughly reviewed at least every five years and revised to reflect new conditions, local attitudes and political realities. In addition, the short-term portions of the general plan should be reviewed annually and revised as necessary to reflect new implementation tools, changes in funding sources, and the results of monitoring the effectiveness of past decisions. The Year 2001 update process is intended to make those changes necessary to more accurately reflect existing goals, policies and implementation measures. The text revisions are intended to give an updated version of the existing development environment. In 1999, to leverage future looking momentum, a group of interested citizens came together, along with City of Bakersfield and Kern County participation to facilitate the creation, over an 18-month period, of a long term vision and action plan for the community. Greater Bakersfield Vision 2020 Inc. was formed as a broad based community effort to create a vision for the Metropolitan Bakersfield area. Many of the goals and strategies developed in that process have been incorporated into this update of the Metropolitan Bakersfield General Plan.

There are a total of 329 implementation measures for all the elements of the Metropolitan Bakersfield 2010 General Plan. Of these measures, 285 are completed or are implemented on an "on-going" basis (87%). There are 43 measures not completed or under consideration. As is readily discernible, the vast majority of measures were implemented or underway in the ten years since adoption of the Metropolitan Bakersfield 2010 General Plan.

There is also an attempt to delete tables, figures, etc. where such information is updated and maintained by other agencies. For example, the Department of Oil and Gas maintains Oilfield maps, or the local school districts maintain school district maps. Every effort has been made to reduce the text to essential information so the general public can easily utilize the General Plan.

PLANNING AREA

In accordance with the state planning law, a general plan must cover all territory within the boundaries of the adopting city or county. The plan should also take into account any area outside which, in the planning agency's judgment, "bears relation to its planning" (Government Code Section 65300). It also allows adoption of area plans or general plans in part. Thereby, the city and county are able to designate the area covered by this plan for study and adoption. The area covered by this plan coincides with the Bakersfield Metropolitan Priority Area of the Kern County General Plan.

Planning issues, by their very nature, usually are not confined by jurisdictional boundaries. Extraterritorial planning is a means by which a local government can formally indicate to its neighbor its concern for the future of lands under its neighbor's jurisdiction and work to achieve compatible development standards for these lands. Cooperative extraterritorial planning allows cities and counties to guide the orderly and efficient extension of services and utilities; ensure the preservation of open space, agricultural and resource conservation lands; and establish consistent standards for development. State planning law defers to the cities and counties to work together in developing formal agreements for processing development proposals within the common planning areas. An excellent example of this type of extraterritorial planning is the freeway system called for in the Circulation Element. Both the City of Bakersfield and the County of Kern need to coordinate circulation activities to achieve this general plan goal.

The planning area selected for use in the preparation of the Bakersfield general plan, delineated in Figure II-1 encompasses an area of approximately 408 square miles. This is the boundary for which all goals, policies, and implementation programs in this general plan pertain.

The city's sphere of influence boundary (1998), defined as a plan for ultimate physical boundary and service area of the City, is also depicted in Figure II-1. Portions of the planning area fall outside the Sphere of Influence boundary, and are included in the General Plan based on the relationship this area bears on the planning and land use interests of the City of Bakersfield.

In recognition of this relationship, the General Plan update will serve to assist the Local Agency Formation Commission to ". . . carry out its purposes and responsibilities for

planning and shaping the logical and orderly development and coordination of local government agencies so as to advantageously provide for the present and future needs of the county and its communities." (Government Code 56425(a))

INTERGOVERNMENTAL COORDINATION

State law requires local governments to work together and with other agencies and public utility companies in preparing and implementing their general plans (Government Code Sections 65304 and 65400(a)). In the case of the Metropolitan Bakersfield General Plan, where both the city and the county are responsible for implementation, cooperation is paramount. In its General Plan Guidelines, the State Office of Planning and Research states:

> *In the planning process, legitimate conflicts crop up between agencies with different responsibilities, constituencies, and viewpoints. To reduce these conflicts, cities and counties should vigorously pursue a full understanding of the other agencies' positions and be prepared to negotiate on the issues at conflict.*

Intergovernmental coordination must occur between various levels of government, including federal, state, regional, county, and city. The following presents a general summary of the relationship between these various levels of government.

FEDERAL AGENCIES

The federal government can be seen as having three primary roles with respect to the planning area. The first role is regulatory and includes among other things, standards for health and the environment, which are administered by such federal agencies as the Environmental Protection Agency, Fish and Wildlife Service and OSHA. The second role is managerial. It entails the management of federally owned land which generally, the city and county have no jurisdiction over. Typically, such lands are managed by the Department of the Interior, Department of Agriculture, and Department of Defense. Finally, the federal government functions as a clearinghouse of information and source of funding for state and local agencies.

STATE AGENCIES

State and federal laws require many state agencies to prepare long-range plans and policies to guide public and private development. Local jurisdictions, in developing and administering general plans, deal most commonly with the State Department of Housing and Community Development, Department of Transportation, Department of Parks and Recreation, Department of Water Resources, Office of Planning and Research, and Office of Emergency Services.

The state exercises direct regulatory authority in a number of areas through the permit procedures of such agencies as the Public Utilities Commission, Office of Noise Control, Department of Health Services, State Air Resources Board, State Water Resources Control Board, and Board of Reclamation. The general plan should complement and be consistent with state regulations in this regard.

State agencies also acquire, develop, and manage land and facilities which have a major effect on local development.

Some of the more influential agencies include the Department of Transportation, Department of Water Resources, Department of Parks and Recreation, State Lands Commission, Department of Developmental Services, Department of General Services, and the California State University and College.

REGIONAL AND AREA-WIDE AGENCIES

Three types of regional and area-wide agencies carry out planning and regulatory activities in the planning area:

a. A voluntary council of governments, Kern Council of Governments (Kern COG), made up of cities and the county and created under the Joint Exercise of Powers Act, carry out a range of planning programs affecting land use, housing, transportation, air and water quality. In Bakersfield, the local COG concerns itself primarily with regional transportation issues, including airport planning, and preparation of the Regional Housing Allocation Plan.

b. State agencies operating at the regional level, such as the Regional Water Quality Control Board.

c. The San Joaquin Valley Unified Air Pollution Control District.

LOCAL AGENCIES

Local agencies include city and county jurisdictions. Their primary responsibilities include land use regulation, health, safety, welfare, and police protection. City and county governments provide citizens the most direct political representation. They also allow for variations in local regulations through mechanisms such as conditional use permits and zoning variances.

Neighboring city and county jurisdictions must send one another copies of their respective proposed and adopted general plans. In addition, when a city or county proposes a public works project within another city or county's jurisdiction, it must submit the proposed project to the appropriate planning agency for review of its conformity to the adopted general plan.

Special districts created under a variety of state statutes offer a range of services similar to cities and counties. The most important of these districts for planning purposes are school districts and those providing sewer, water, garbage collection, airports, flood control, air pollution control, transit, parking, roads, parks and recreation, resource conservation, and community services. Each special district must annually submit a list of its proposed public works projects to the appropriate city or county planning agency for review of conformance to its general plan. Special districts including school districts to a degree, must also comply with local building and zoning ordinances of the city or county in which they are located. Most districts created by state and federal acts are exempt.

In addition to special districts, privately owned companies under jurisdiction of the California Public Utilities Commission, including gas, electric, water, transit companies and railroads, make services available and carry out public works having a direct bearing on the general plan.

Local Agency Formation Commissions (LAFCOs) are state-created and govern the boundary changes of all local agencies, except school districts. LAFCO's within each county have the power to approve or deny annexations and detachments. In addition, state law requires LAFCO to determine the "sphere of influence" of each local agency and special utility district within a county.

Finally, special purpose agencies, such as redevelopment agencies, housing authorities, and parking authorities, are also involved in community development.

EXISTING AND PROPOSED STRUCTURES FOR INTERGOVERNMENTAL COORDINATION

The city and county have formulated a number of agreements and established committees to provide intergovernmental coordination in the planning area. Examples include the following:

- Joint Bakersfield City Council and Kern County Board of Supervisors meetings are conducted twice a year to review and act on issues of mutual interest and concern.
- A process of joint review and referral for development within the Kern River Plan Element planning areas.
- County and city public works/engineering staff customarily and routinely cooperate in the planning, design, and implementation of storm drainage, solid waste disposal, water supply, road and bridge construction, and traffic projects which are located in or affect both governmental agencies.

This general plan has additional agreements and institutional structures to enhance intergovernmental coordination. Responsibilities vary according to the type of service provided, use requirements, and geographic area served. Generally, they are intended to provide coordinated and consistent services to all residents, businesses, and visitors to the planning area. In some cases, the plan calls for the formation of a single entity to provide service to the entirety of the area, or to contiguous geographic areas which cross city and county boundaries.

In other cases, the plan calls for the retention of existing service structures with additional cooperative arrangements for areas which are fragmented by jurisdictional boundaries (e.g., county "islands" surrounded by urban/suburban types of development). In all cases, the plan calls for the provision of like-services to like-development regardless of jurisdictional boundary.

For example, urban areas (those areas developed at quarter-acre lots and higher densities) which are contiguous to other urban areas should receive a consistent level of

"urban type" services regardless of whether they are located in the city or county. The specific arrangements among multiple service agencies are defined as they pertain to each element of this plan.

SUMMARY

The purpose of general plans is to provide local jurisdictions with "constitutions" for future development. While responsible for regulating land use, health, safety, welfare, and police authority, they must coordinate regulation with other local jurisdictions and state and federal agencies.

Often there is an overlap of responsibilities between federal, state, regional, and local agencies. It is the intent of this plan to implement all policies and programs in conformance with state and federal laws.

Of particular concern to the General Plan is the coordination of planning among the city, county, special districts, and special purpose agencies. Many agreements, both formal and informal, already exist between these agencies.

RELATIONSHIP WITH OTHER PLANS

State law requires the general plan to be both internally consistent, and consistent with all other community plans. Additional plans within the planning area include:

- Air Quality Maintenance and Non-Attainment Plan-Kern County
- Bikeways Plan (Circulation Element)-City of Bakersfield, Kern County
- Emergency Response Plan-City of Bakersfield, Kern County
- Regional Transportation Plan-Kern COG
- Regional Airport Systems Plan-Kern COG
- Solid Waste Management Plan-Kern County, City of Bakersfield
- Metropolitan Bakersfield Habitat Conservation Plan-Kern County, City of Bakersfield
- Kern County and Incorporated Cities Hazardous Waste Management Plan

SPECIFIC PLANS

In accordance with state law, both the city and county have adopted specific plans for properties within the boundaries of the General Plan area. It is the intent of the General Plan to incorporate those plans, by reference, and to make provision for the adoption of future specific plans as may be desired or required.

These specific plans must contain measures to implement all policies in the general plan for that area. Specific plans are intended to be an amplification of the goals and policies of the General Plan and are, therefore, consistent therewith. The Land Use Plan map for the General Plan replicates land use designations of these specific plans in a schematic way. To determine exact land use designations within presently existing, or any subsequently adopted, specific plans, it is necessary to refer to those adopted documents.

PLAN PREPARATION PROCESS - 1990

The Metropolitan Bakersfield 2010 General Plan (titled Metropolitan Bakersfield General Plan in the 2001 update) was the product of a collaborative effort in 1990. A twenty-five member General Plan Advisory Committee (GPAC), composed of community residents and business representatives, was selected to assist in the preparation of the general plan and make advisory recommendations to the city and county. Individuals were selected from a wide range of interest groups in the community representing each of the planning area's eleven neighborhoods. Furthermore, the city established a Technical Advisory Committee (TAC) composed of inter-agency staff for review of all documents prepared for the plan. A team of professional consultants was retained to structure, guide and provide technical input into the planning process.

In addition to the GPAC, community participation was solicited from special interest group subcommittees whose focus was on specific planning elements such as transportation, land use, and housing. Two rounds of community-wide neighborhood workshops were conducted where public input was sought to define principal planning issues, and to review alternative land use plans.

A speakers bureau was also assembled where presentations of land use alternatives were made to a variety of community groups. The City Planning Commission and County Planning Advisory Committee conducted joint public workshops and public hearings on the plan and associated environmental documents and provided recommendations to the City Council and Board of Supervisors. The Metropolitan Bakersfield General Plan process was covered substantially in the local newspaper, radio and television media.

As required by the California Environmental Quality Act (CEQA), an Environmental Impact Report (EIR) was prepared with the plan. This document discusses the change in the planning area's physical and environmental character which could occur under implementation of the plan. More specifically, the EIR analyzes the impact of land use buildout for each of the plan's subject sections, and identifies mitigation measures to minimize these impacts.

PLAN UPDATE - 2001

In the year 2001, the city and county performed a comprehensive update to the 2010 General Plan. This comprehensive update eliminated the year 2010 from the title and is therefore simply called the Metropolitan Bakersfield General Plan. The update program includes revisions and implementation measures that reflect current issues and trends and the metropolitan area's goals for future conservation and development over the next 20 years.

An EIR was also prepared for the update of the General Plan in 2001. This EIR analyzed impacts resulting from implementation of policies adopted by the 2010 Plan.

The General Plan update provides information concerning:

1. The present and planned land uses in this area, including agricultural and open space lands.

2. The present and probable need for public facilities and services in the area.

3. The present capacity of public facilities and adequacy of pubic services which the city/county provides.

Provides clarification that the update designates where growth will occur, where services will be needed, and the capacity of pubic service facilities.

CHAPTER II - LAND USE ELEMENT

STATUTORY REQUIREMENTS

State of California Planning and Zoning Law requires that a land use element be prepared as part of the general plan as follows:

> Government Code Section 65302(a): A land use element which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall also identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to such areas.

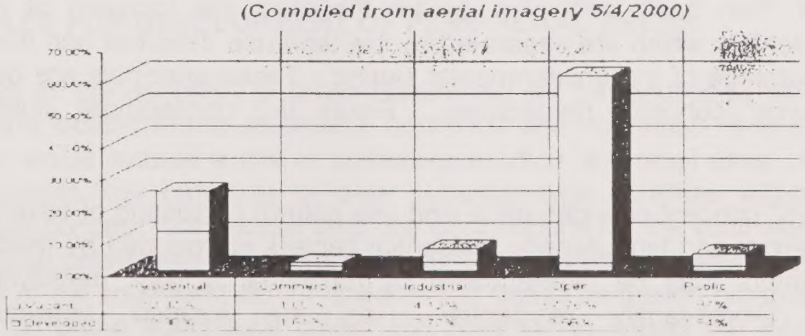
Effectively, the Land Use Element has the broadest scope of any element required by the state. Since it regulates how land is to be utilized, it integrates most of the issues and policies contained in other plan elements.

A. EXISTING LAND USE

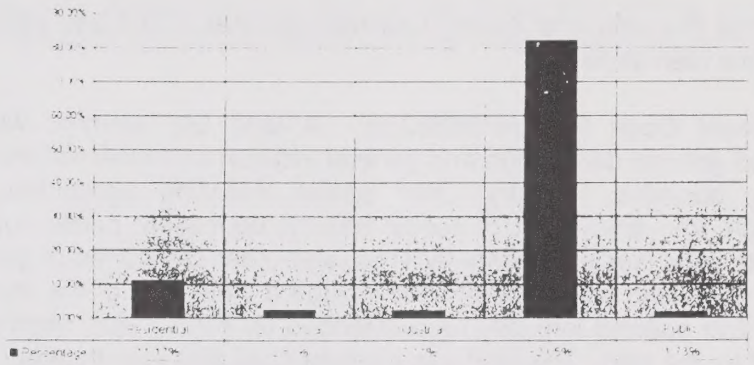
OVERVIEW OF EXISTING CONDITIONS

An inventory of existing land use has been prepared on the Year 2000 conditions by the City of Bakersfield. The following data is a compilation of Geographic Information Systems data compared with a recent (June 2000) photo survey of the entire Metropolitan Bakersfield General Plan area. The existing uses and percentage of land available in each primary land use designation is shown on the following graph. The percentage of existing land uses from 1990 are shown on the next graph.

Percentage of Land Use within Primary Land Use Categories
Showing Developed and Vacant Lands
(Compiled from aerial imagery 5/4/2000)



Percentage of Existing Land Use in 1990



The graph demonstrates there is enough vacant land designated for urbanization available to double the existing development in Metropolitan Bakersfield. The population growth from 2002 - 2020 is anticipated around 20% - City of Bakersfield Planning Department. It appears the number of areas available for development will accommodate the expected demand.

An inventory of existing land use has been prepared based on review of aerial photographs and Kern County land use maps, and supplemented with field checks of selected sites. Existing land uses in the planning area have been classified according to the following categories.

OVERVIEW OF THE GENERAL PLAN BASIC PRINCIPLES FOR NEW URBAN AREAS

The Metropolitan Bakersfield General Plan Land Use Map is depicted in Figure II-1, located in the back of this document.

The plan map provides a graphic depiction of the general plan's development policies, and indicates the land use designations for which pertinent policies and standards have been established. Two basic principles govern the plan: the focusing of new development into distinctive centers which are separated by low land use densities and the siting of development to take advantage of the environmental setting. These principals are defined as the "centers" and "resource" concepts respectively. Figure II-2 conceptually illustrates these land use principles.

The "centers" concept provides for a land use pattern consisting of several concentrated mixed-use commercial and high density residential centers surrounded by medium density residential uses. Centers may be differentiated by functional activity, density/intensity, and physical character. Single-family residential uses are located between these mixed-use commercial/residential centers primarily. This concept encourages people to live and work in the same area and, thus, serves to minimize sprawl and reduce traffic, travel time, infrastructure costs, and air pollution.

In addition to promoting the formation of several large concentrated mixed-use centers, the plan also attempts to consolidate smaller, neighborhood-serving commercial development by prescribing minimum distances between commercial parcels and by discouraging strip commercial development.

The "resources" concept emphasizes the siting of development to reflect the planning area's natural and visual resources; its river, canals, and foothills. The "resources" concept uses as a point of departure, the 1985 Kern River Plan Element (as amended), which takes advantage of the recreational potential of the river while respecting the river's sensitive natural habitats and aesthetic resources. It is proposed that linkages to unique resources be encouraged. Policies have been included in the plan to promote utilization and sensitivity of natural and visual resources.

BASIC PRINCIPLES FOR EXISTING URBAN AREAS

The plan provides for (a) preservation and conservation of existing residential neighborhoods whose identity is characterized by the quality and maintenance of existing construction, stability, and reputation as a "special" place in the community, (b) infill of vacant parcels at prevailing densities, (c) recycling and intensification of areas which are physically or economically depressed, and (d) open space linkages where feasible to the Kern River and foothill areas.

Strip commercial and sprawling residential land use patterns, which lack consolidation or focus are inconsistent with principles defined in the plan.

In addition, this plan provides for the preservation of stable, primarily single-family neighborhoods by allowing for a reduction in the densities from those permitted by the previous general plan.

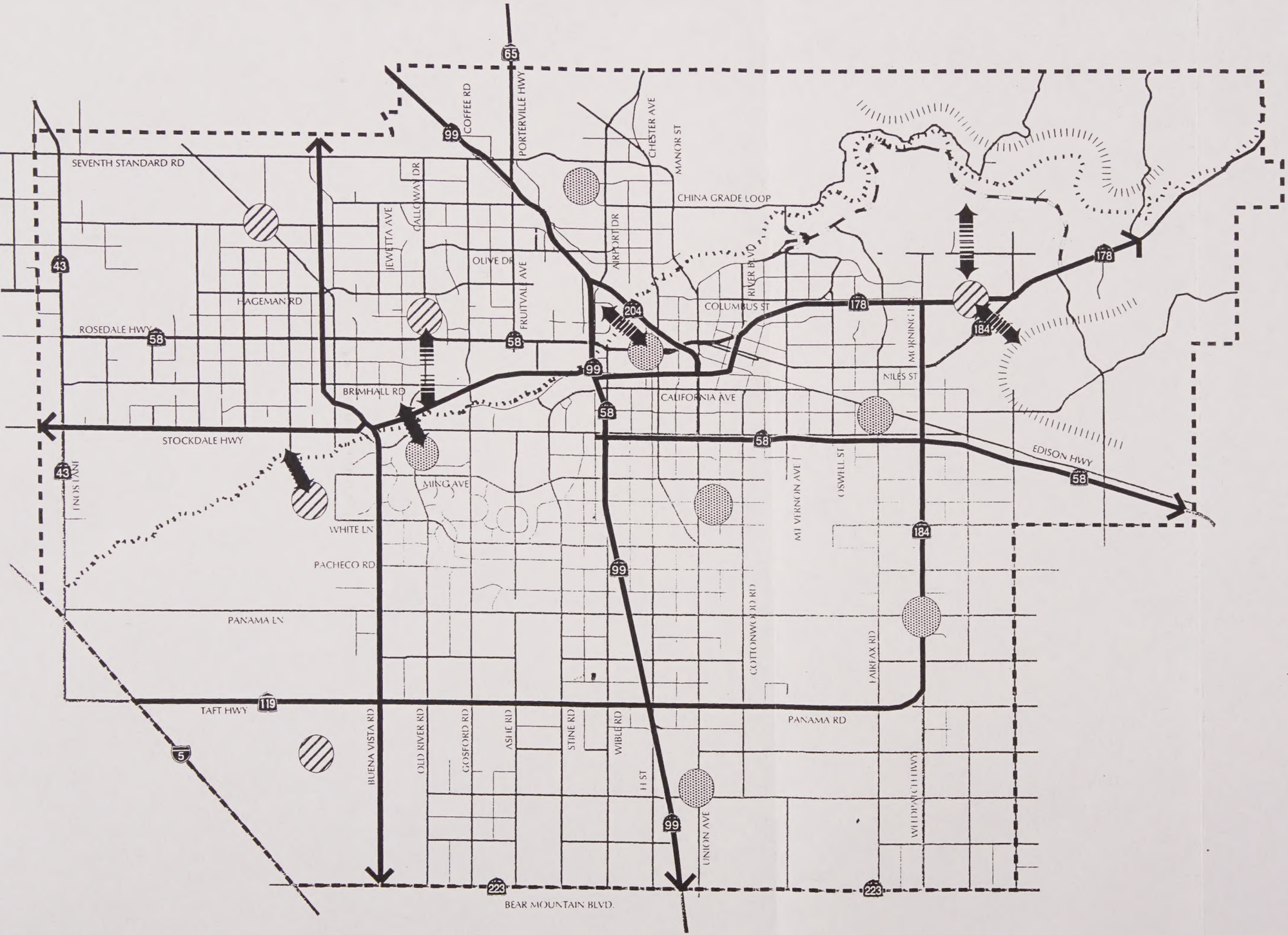
It is important to note that the general plan maps can only reflect the quality and character desired in a particular land use designation in general terms.

The maps do not illustrate every existing exception from one land use category depicted, even though such uses may be recognized as acceptable and "permanent" uses.

Thus, the maps indicate the predominant use of land in each area and do not preclude existing or future minor deviations from the overall pattern as may be permitted by the Zoning Ordinance, Variance, and Modification procedures.

BASIC PRINCIPLES FOR DEVELOPMENT OF PERIPHERAL AREAS

New development on the periphery of urban Bakersfield will be focused in ten (10) new mixed use activity centers located in the southwest, northwest and northeast. It is expected that the southwest center would include a mix of professional office and retail uses, moderate density residential, and would filter outwards to lower suburban-type densities. Although depicted in Figure II-2 in policy concept form, actual land use designations for the southwest center and the area around it will be determined through a more detailed land use and environmental analysis. In depth analysis of the southwest center is warranted due to its growth potential and its related impacts, impact on prime agricultural lands, and potential to impact the Kern River corridor resource.



LEGEND

- New Mixed Use Centers
- Intensified Activity Centers
- Major Transportation Corridors
- Potential Resource/ Urban Linkages
- Kern River Corridor
- Foothills
- Metropolitan Bakersfield Boundary Line

NORTH

5000 0 5000 10000 Feet

Centers and Resources

FIGURE II–2

RBF GIS JN: 10100648 June 18, 2002

The two northwest centers will contain retail commercial, light industrial, moderate and high density residential, and will be surrounded by low and estate residential densities. The center in the northeast will include retail commercial, professional office, moderate and high density residential, and will filter outwards to lower densities. The plan encourages that each center: (a) focus on a major open space amenity, such as a park or water body; (b) link land uses to the Kern River where possible; and (c) exhibit pedestrian sensitivity with appropriate design applied to encourage pedestrian activity. In addition to these centers, peripheral development will be focused in smaller community centers, such as in the Greenfield and Lamont areas, with local-serving commercial services and residential uses. These unincorporated communities are recognized as unique agricultural-related communities within the metropolitan area that are separate and distinct from the City of Bakersfield. The distinctive identities of these communities within the metro area should be encouraged through subsequent actions that implement the General Plan.

As a general rule, the sphere of influence boundaries were utilized to help define the boundaries of planned urban growth. However, there are two exceptions to this. The most obvious exception is the southwest center. Here, while the commercial center lies within the sphere of influence, the single-family residential densities extend beyond the western boundary of the present sphere of influence. Justification for extending beyond the sphere of influence boundary includes the following: (a) rapid growth has already taken place in this direction in recent years and shows no signs of slowing; (b) the area presents an opportunity to capitalize on the Kern River as a visual and aesthetic resource; and (c) the ease with which services may be extended. The second exception occurs in Oildale. In particular, a major new airport terminal with supporting commercial and industrial uses are master planned just north of the existing terminal at Meadows Field.

LAND USE PLAN ASSUMPTIONS

The Bakersfield Planning Department projects the population of the plan area to be 520,500 in the Year 2020. The current year 2001 population is 402,100. Population growth over the next 18 years is projected as 112,000. This will result in the need for approximately 37,000 housing units.

Within the planning period northeast Bakersfield is anticipated to see significant growth. Infrastructure necessary for urbanization (sewer, water supply, utilities) are all anticipated to be completed early in the planning period.

INCORPORATION OF APPROVED SPECIFIC PLANS

State law requirements describing the relationship of specific plans to a city and/or county's general plan are defined in Section I, "Introduction." Adopted city and county specific plans are provided for on the Land Use Plan Map*.

* Where this plan's land use designations do not reflect precisely the specific plan designations, they do approximate the specific plan designations. For example, this plan's "LR" designation (1-7.26 DU/net acre) approximates the Kern River Plan's 5.35 designation (4-8 DU/acre).

Adopted city and county specific plans are incorporated by reference as part of the Metropolitan General Plan. The policies and standards of the most restrictive plan shall apply.

GOALS AND POLICIES

The following presents the goals and policies for land use in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed a capital "I" and number in parenthesis which refers to the pertinent implementing program.

GOALS

1. Accommodate new development which captures the economic demands generated by the marketplace and establishes Bakersfield's role as the capital of the southern San Joaquin Valley.

2. Accommodate new development which provides a full mix of uses to support its population.

3. Accommodate new development which is compatible with and complements existing land uses.

4. Accommodate new development which channels land uses in a phased, orderly manner and is coordinated with the provision of infrastructure and public improvements.

5. Accommodate new development which capitalizes on the planning area's natural environmental setting, including the Kern River and the foothills.

6. Accommodate new development that is sensitive to the natural environment, and accounts for environmental hazards.

7. Establish a built environment which achieves a compatible functional and visual relationship among individual buildings and sites.

8. Target growth companies that meet clean air requirements, and create sustainable employment in jobs paying higher wages.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions. For ease of implementation, policies have been arranged with respect to land use designations they influence. Those which cannot be categorized by land use designation have been placed in a "General" category or a category designed to better describe the topic addressed by the policy.

LAND USE DESIGNATIONS

1. Provide for the following types of land uses, as depicted on the Land Use Plan (I-1):

a) Residential*

- Rural (RR**-minimum 2.5 gross acres/unit): A designation characterized by widely separated rural housing. While some of the lots between 2.5 and 5.0 acres may have public water and/or sewer service, those with 5 acres or more for the most part lack such services.

- Estate (ER-minimum 1 net acre/unit): Single-family housing with rural service needs.

- Suburban (SR-less than or equal to 4 dwelling units/net acre): Generally non-sewered single-family detached units.

- Low Density (LR-less than or equal to 7.26 dwelling units/net acre): Single-family detached housing, typical of tract developments.

- Low Medium Density (LMR-City-greater than 4.0 and less than or equal to 10.0 dwelling units/net acre; County-less than or equal to 10 dwelling units/net acre): Composed largely of attached, single-family townhomes, duplexes, and zero lot line developments. May apply to small multiple-family structures, such as triplexes, and mobilehome parks which require a full array of urban services.

- High Medium Density (HMR-City-greater than 7.26 and less than or equal to 17.42 dwelling units/net acre; County-less than or equal to 17.42 dwelling units/net acre).

- High Density (HR-City-greater than 17.42 and less than or equal to 72.6 dwelling units/net acre; County-less than or equal to 29 dwelling units/net acre): Applies to large multiple-family structures, such as apartments, apartment hotels, and condominiums. This designation would be used in **urban centers context.**

b) Commercial

- Highway (HC- max. .4 FAR*** 3 stories): Services, amenities and accommodations associated with the traveling public located adjacent to or in close proximity to major highways. These may include gas stations, restaurants, motels, and RV parks.

- General (GC- max. 1.O FAR, 4 stories): Retail and service facilities providing a broad range of goods and services which serve the day-to-day needs of nearby residents.

* In the Land Use Plan Map, some areas have been assigned dual designations, such as "LMR/LR" and "SR/LR". The circled designation represents the land use of Kern County. The alternative designation represents the land use should the area become incorporated into the city.

** Land use map designation.

*** FAR: Floor Area Ratio = Gross Building Area divided by Net Parcel Area

- Major (MC- max. 1.O FAR, 6 stories): Concentrated large-scale retail operations providing a broad range of goods and services which serve a market area of many square miles.

- Office (OC- max. 1.0 FAR, 4 stories): Business and professional office uses, and specialty retail.

- Mixed Use (MUC- max. 3.0 FAR): Major commercial centers combining professional office, major retail and commercial support services. This designation would be warranted for intensive development characteristic of a commercial center within the city. It also provides the opportunity for integration of medium and high density residential uses in conjunction with commercial activities in order to create an active street life, enhance personal safety by ensuring the presence of people in the streets at different times, and promote the vitality of businesses.

c) Industrial

- Light (LI- 1.0 FAR, 6 stories): Unobtrusive industrial activities that can locate in close proximity to residential and commercial uses with a minimum of environmental conflicts.

- Service (SI- .4 FAR, 6 stories): Industrial activities which involve outdoor storage or use of heavy equipment. Such uses produce significant air or noise pollution and are visually obtrusive.

- Heavy (HI- .4 FAR, 14 stories): Large-scale industrial activity which is usually land intensive and incompatible with other land uses because of potential severe environmental impacts.

d) Resource

- Intensive Agriculture (R-IA - minimum 20-acre parcel size): Areas devoted to the production of irrigated crops, or having the potential for such use.

- Extensive Agriculture (R-EA - minimum 80-acre parcel size for lands under "Williamson Act" contract; 20-acre minimum, lands not under contract): Agricultural uses involving large amounts of land with relatively low value-per-acre yields such as livestock grazing, dryland farming, and woodlands.

- Mineral and Petroleum (R-MP - minimum land use designation size 5-acres): Areas which contain producing, or potentially productive, petroleum fields and mineral deposits. This designation may be used in combination with other designations.

e) Public Facilities

- Public Facilities (P): includes government buildings, hospitals, public utilities, cemeteries, sewage treatment plants, waste disposal sites and other publicly owned facilities.

- Public and private schools (PS).

- Public Transportation (PT): Existing airports and railroads whose future use is restricted to transportation related uses.

- Solid Waste Facility Sites (P-SW): Includes solid waste disposal sites, transfer stations and related resource recovery activities.

f) Open Space

- Open Space (OS): Floodplains and Resource Management Areas. Agriculture uses are also permitted.

- Parks (OS-P): Includes all city and county parks as well as public and private recreation facilities.

- Slopes (0S-S): Areas with greater than or equal to thirty percent slope. Slope areas are better defined by an overlay zone or hillside development standards.

RESIDENTIAL DEVELOPMENT

2. Allow for the development of a variety of residential types and densities (I-1).

3. Ensure that residential uses are located in proximity to commercial services, employment centers, public services, transportation routes, and recreational and cultural resources (I-1).

4. Encourage maintenance of the residential character of specially identified neighborhoods through such mechanisms as architectural design, landscape, and property setbacks (I-1, I-7, I-8).

5. Provide for streetscape improvements, landscape, and signage which uniquely identify major and/or historic residential neighborhoods (I-8).

6. Retain existing residential neighborhoods as designated on the Land Use Plan, and allow for the infill of residential land uses which are compatible with the scale and character of the surrounding neighborhood (I-1).

7. Provide for the retention of historic residential neighborhoods as identified in the Historical Resources Element if adopted by the City of Bakersfield (I-1, I-6, I-8).

8. Provide the opportunity for the development of residential units in areas designated for commercial use provided that conflicts between the two can be adequately mitigated (I-1).

9. Permit the conversion of existing single-family neighborhoods to higher densities in those areas in which (1) there are physical and economic conditions which warrant the replacement of existing units, (2) the uses are contiguous with other higher density uses, and (3) adequate infrastructure services are available and/or provided for by developers (I-1).

10. Accommodate high and high-medium density residential adjacent to existing and planned commercial, multi-family, and principal transportation corridors (I-1).

11. Encourage that all new high and high-medium density residential designations be on a contiguous area of at least five acres (I-1)

12. Allow for the intensification and development of existing high and high-medium areas, regardless of size (I-1).

13. Require that new multiple family residential projects incorporate design features such as screen walls and height and setback restrictions which foster compatibility with adjacent existing and future single family residential uses (I-1, I-6, I-8).

14. Require all multi-family residential land uses be adequately set back from the street (I-1).

COMMERCIAL DEVELOPMENT

15. Allow for the development of a variety of commercial centers/corridors which are differentiated by their function, intended users and level of intensity, including convenience centers serving local residential neighborhoods, sub-regional

centers which serve groupings of neighborhoods, and major regional centers which serve the planning area and surrounding areas (I-1)

16. Allow for the development of a variety of commercial uses, including those which serve residents (groceries, clothing, etc.), highway users, and tourists-visitors (I-1).

17. Ensure that adequate lands are set aside for neighborhood-serving commercial uses adjacent to designated residential areas. Where land has not been set aside, permit neighborhood scale commercial uses in residential areas when compatible with surrounding development (I-1).

18. Require all new commercial designations be assigned to sites where the aggregate of all contiguous parcels designated for commercial use is no less than five (5) acres, except for approved specific plans, parcels to be developed for highway-oriented service uses at freeway on- and off-ramps, or where physical conditions are such that commercial is the only logical use of the property (I-1).

19. Allow for the intensification and development of existing commercial areas in an infill fashion (I-1).

20. The depth of new commercial developments shall be at least half the length of the street frontage. Exceptions may be made where existing development or physical constraints provide a more logical shape (I-2).

21. Encourage a separation of at least one-half mile between new commercial designations (I-1).

22. Locate major (regional) commercial uses in proximity to existing regional centers (such as Valley Plaza and East Hills Mall), and in proximity to future regional serving commercial centers in the downtown, southwest, northwest, and northeast, as designated on the Land Use Policy Map (I-1).

23. Promote the recycling of block-long corridors of commercial uses so as to consolidate new commercial uses (I-1, I-5, I-10).

24. Encourage the clustering of commercial development in compact areas, rather than extended along streets and highways (I-1).

25. Provide for infill of commercial land uses to be compatible with the scale and character of existing commercial districts and corridors (I-1).

26. Encourage adjacent commercial uses to be of compatible height, setback, color and materials (I-1, I-6, I-8).

27. Require that new commercial uses maintain visual compatibility with single-family residences in areas designated for historic preservation (I-1, I-6, I-8).

28. Require that commercial development provide design features such as screen walls, landscaping and height, setback and lighting restrictions between the boundaries of adjacent residential land use designations so as to reduce impacts on residences due to noise, traffic, parking, and differences in scale (I-1, I-6, I-8).

29. Require that automobile and truck access to commercial properties sited adjacent to designated residential parcels be located at the maximum practical distance from the residential parcel (I-1, I-6).

30. Street frontages along all new commercial development shall be landscaped (I-1).

INDUSTRIAL DEVELOPMENT

31. Allow for a variety of industrial uses, including land-extensive mineral extraction and processing, heavy manufacturing, light manufacturing, warehousing and distribution, transportation-related, and research and development uses (I-1).

32. Protect existing industrial designations from incompatible land use intrusions (I-1, I-6, I-8).

33. Encourage the efficient use of existing industrial land uses through consolidation of building and storage facilities (I-1, I-6, I-8).

34. Provide for the clustering of new industrial development adjacent to existing industrial uses and along major transportation corridors (I-1).

35. Encourage upgrading of visual character of heavy manufacturing industrial areas through the use of landscaping or screening-of visually unattractive buildings and storage areas (I-1, I-6, I-8).

36. Require that industrial uses provide design features, such as screen walls, landscaping and height, setback and lighting restrictions between the boundaries of adjacent residential land use designations so as to reduce impacts on residences due to light, noise, sound and vibration (I-1, I-6, I-8).

37. Street frontages along all new industrial development shall be landscaped (I-1, I-6, I-8).

38. Minimize impacts of industrial traffic on adjacent residential parcels through the use of site plan review and improvement standards (I-1, I-6).

CENTERS DEVELOPMENT

39. Enhance existing and establish new centers as the principal focus of development and activity in the planning area, around which other land uses are grouped. Centers should be linked by adequate transportation facilities and may be linked to the Kern River, canals, or other resource amenities. Centers may be differentiated by functional activity, density/intensity, and physical character (I-1, I-6, I-8).

40. Provide for the enhancement and intensification of existing "centers" such as (I-1):

a)	Downtown	f)	Lamont
b)	California State University, Bakersfield	g)	Greenfield
c)	Bakersfield Airpark/Casa Loma	h)	McAllister Ranch
d)	Meadows Field	i)	Northwest Bakersfield
e)	Highway 58/Weedpatch Highway	j)	Rosedale Ranch

41. Provide for the intensification of downtown Bakersfield for governmental, financial, professional office, retail, residential, cultural, specialty, and supporting uses (I-1).

42. Provide for the revitalization of downtown Bakersfield by the use of redevelopment authorities provided by California law, including the provision of incentives for new private development projects, joint private-public partnerships, and public improvements; accommodating the range of land uses defined for this "Center" (I-1, I-5, I-8, I-10).

43. Encourage renovation and the adaptive reuse of significant cultural and entertainment facilities downtown (I-5).

44. Provide for the establishment of the following new centers as the focus of development in the planning area (I-1):

a) Southwest
b) Northwest
c) Northeast

45. Allow for the development of a center in southwest Bakersfield which is a focal point of activity and includes a mix of professional office and retail uses, moderate density residential, and filters outward to lower suburban-type densities, according to the following principles (I-1):

a) Encourage focus on an open space amenity such as a park or water body;

b) Provide opportunity for the development of residential units above ground floor commercial;

c) Encourage land use link with the Kern River and promote pedestrian activity within center.

46. Allow for the development of centers in northwest Bakersfield to serve the Rosedale Community and adjacent rural areas, containing retail commercial, light industrial, moderate and high density residential, and is surrounded by low and estate residential densities, according to the following principles (I-1):

a) Attempt to focus on open space amenities;

b) Promote pedestrian activity and where feasible attempt to link land uses with the Kern River.

47. Allow for the development of a low density "village-like" center in the Northeast as a focal point of activity which includes retail commercial, professional offices, moderate and high density residential, and filtering outwards to lower densities, according to the following principles (I-1, I-6, I-8).

a) Attempt to focus on open space amenities;

b) Cluster development to take advantage of views;

c) Encourage development to preserve public views of foothill topography and sensitive habitats;

d) Provide the opportunity for the development of residential units above ground floor commercial;

e) Promote pedestrian activity and use of greenbelt links between land uses.

48. Enhance pedestrian activity in principal activity centers of the planning area (I-6, I-8).

49. Encourage development of pedestrian sensitive uses and design characteristics in the following areas (I-1):

a) Downtown
b) Baker Street
c) Southwest Center
d) Northwest Centers
e) Northeast Center

PUBLIC FACILITIES

50. Coordinate with the appropriate agencies so that adequate land and facilities are set aside for schools, parks, police/fire, libraries, cultural facilities, recreational facilities and other service uses to serve the community (I-2).

51. Encourage the continued development of California State University Bakersfield and adjacent areas for education, cultural, and supporting commercial and residential uses (I-1).

52. Locate new development where infrastructure is available or can be expanded to serve the proposed development (I-12).

53. Ensure that land use and infrastructure development are coordinated (I-2, I-6, I-12).

54. The developer shall be responsible for all on-site costs incurred as a result of the proposed project, in addition to a proportional share of off-site costs incurred in service extension or improvements. The availability of public or private services or resources shall be evaluated during discretionary project consideration. Availability may affect project approval or result in a reduction in size, density, or intensity otherwise indicated in the general plan's map provisions (I-6, I-11).

55. Provide for the mitigation of significant noise impacts on adjacent sensitive uses from transportation corridor improvements (I-6, I-7).

56. Review and evaluate the land use designations of the plan on agreement of a final route alignment of the Route 178/58 Freeway, and any other future freeways, to ensure appropriate land use relationships, including (I-6, I-7):

    a) Adequate setbacks, buffers, and/or restrictions on residential density to prevent noise impacts;

    b) Potential for commercial services at principal off-ramps;

    c) Potential for industrial uses which can benefit by close freeway proximity.

57. Utilize a joint powers agreement or other merchandise to promote the provision of uniform services related to development, public safety, recreation and other services.

58. Establish a joint City/County task force to identify inconsistencies in services and measures to enhance uniformity.

59. Encourage annexation of County islands into the City.

SIGNAGE

60. Coordinate a consistent design vocabulary between city and county for all public signage, including fixture type, lettering, colors, symbols, and logos (I-1, I-6).

61. Provide signage which is adequately spaced and clearly visible during the day and night to control vehicular traffic, bicycles, and pedestrians (I-1, I-6).

62. Encourage the use of creative and distinctive signage which establishes a distinctive image for the planning area and identifies principal entries to the metropolitan area, unique districts, neighborhoods and locations (I-1, I-6).

63. Permit the use of well-designed banners for civic events, holidays, and other special occasions (I-1, I-6).

64. Encourage that signs be designed and placed on buildings to be visible to pedestrians in areas designated for pedestrian activity (I-1, I-6).

65. Prohibit the use of private, permanent signs in residential neighborhoods, except those for identification, sales and rental of property (I-1, I-6).

IMAGE

66. Develop a distinctive identity for the Bakersfield region which differentiates it as a unique place in the Southern San Joaquin Valley (I-1, I-6, I-8).

67. Capitalize on the Kern River, parks, steep hills, and canals as organizational elements for the Bakersfield area, creating activity corridors around which development and recreational uses can be focused (I-6, I-7, I-8).

68. Allow variation in the use of street trees, shrubs, lighting, and other details to give streets better visual continuity and increased shade canopy (I-1, I-6, I-8).

69. Provide for the installation of street trees which enhance pedestrian activity and convey a distinctive and high quality visual image (I-6, I-8).

70. Encourage landscaping the banks of flood control channels, canals, roadways and other public improvements with trees to provide a strong visual element in the planning area (I-1, I-4, I-6, I-8).

71. Promote the establishment of attractive entrances into communities, major districts, and transportation terminals, centers, and corridors within the planning area (I-6, I-8).

72. Promote the creation of both residential and commercial historic districts, and encourage the upgrading of historic structures (I-1, I-6, I-8).

73. Encourage the establishment of design programs which may include signage, street furniture, landscape, lighting, pavement treatments, public art, and architectural design (I-1, I-6, I-8).

74. Construction effects shall be evaluated by the City of Bakersfield and/or County of Kern on a site-specific, project-by-project basis and subject to City and/or County standards and conditions of approval.

GENERAL

75. Provide adequate land area for the expansion of existing uses and development of new uses consistent with the policies of the general plan (I-1).

76. Provide for a mix of land uses which meets the diverse needs of residents; offers a variety of employment opportunities; capitalizes, enhances, and expands upon existing physical and economic assets; and allows for the capture of regional growth (I-1).

77. Allow for the continuance of agricultural uses in areas designated for future urban growth (I-1).

78. Accommodate new projects which are infill or expansion of existing urban development (I-1).

79. Provide for an orderly outward expansion of new "urban" development (any commercial, industrial, and residential development having a density greater than one unit per acre) so that it maintains continuity of existing development, allows for the incremental expansion of infrastructure and public services, minimizes impacts on natural environmental resources, and provides a high quality environment for living and business (I-11).

80. Assure that General Plan Amendment proposals for the conversion of designated agricultural lands to urban development occur in an orderly and logical manner giving full consideration to the effect on existing agricultural areas (see Chapter V, Conservation/Soils and Agriculture Policies 3 and 14) (I-15)

81. Allow for flexibility in the specific siting of multi-family residential and commercial uses from the locations generally depicted on the Land Use Map in areas which are undeveloped, used for resource production, or are developed at very low densities through Planned Unit Development, Planned Commercial Developments and Specific Plans, provided that: (I-2; I-3, I-6):

    a) The overall density and distribution of land uses is maintained;

    b) Multi-family and commercial uses are located in proximity to principal roadways, public transit, employment nodes, commercial services, and recreational uses and within 330 feet of the location depicted on the Land Use Policy Map;

    c) Uses are sited to take advantage of pedestrian greenbelts, recreational amenities, and natural environmental resources;

    d) The availability of infrastructure to the site or adjacent service areas is not adversely impacted.

82. Preserve existing significant sound residential neighborhoods, commercial districts, and industrial areas (I-1, I-6, I-8).

83 Provide for the use of redevelopment authorities in other locations of the metropolitan area which California Redevelopment law has determined as blighted (I-5).

84. Provide incentives to upgrade deteriorating residential, commercial and industrial uses when the property owner or resident cannot afford improvements (I-10)

85. Encourage the revitalization of deteriorated land uses and buildings (I-5, I-9).

86. Encourage infill of vacant parcels (I-10).

87. Encourage mixed-use development in the downtown area. (I-1, I-5, I-6, I-10)

88. Encourage the recycling of dilapidated and economically-depressed residential neighborhoods, commercial districts, and industrial areas, where preservation is not an achievable or desirable objective (I-5, I-10).

89. Encourage new uses and buildings in pedestrian sensitive areas to incorporate design characteristics which include (I-1, I-6, I-8):

    a) Walls which are aesthetically treated by the use of color, materials, offset planes, columns, and/or other architectural details, to provide visual interest to pedestrians;

    b) Landscaping, including trees, flowering shrubs, and ground cover;

    c) Pedestrian amenities, such as benches, trash receptacles and signage oriented to the pedestrian;

    d) Design amenities related to the street level such as awnings, arcades, and paseos;

    e) Visual access to the interior of buildings;

    f) Uses other than parking and traffic circulation between the sidewalk and building.

90. Encourage the development of a range of child care facilities including small and large family day care homes and public and private care centers (I-13).

91. Encourage employers and developers of employee-intensive commercial and industrial projects to provide facilities or referral services for the child care needs of employees (I-14).

92. In the county, all residential developments that provide complete public infrastructure improvements including community water distribution and sewage collection and treatment systems may be permitted a density increase up to 20 percent. All land division activities shall be consistent with this provision (I-1).

93. Where possible, incorporate land encumbered with electrical transmission line easements with lines operating at 50,000 volts or above into development as a functional design component with the cooperation of the easement holder (I-1, I-2, I-6, I-8).

94. Encourage the incorporation of land encumbered with electrical transmission line easements with lines operating at 50,000 volts or above into project design by providing incentives for the affected development (I-1, I-2, I-6, I-8).

95. When planning for new development, coordinate with utility companies to designate future or potential electrical transmission line corridors as needed to serve the metropolitan area (I-1, I-2, I-6, I-8).

96. Where possible, utilize land encumbered with electrical transmission line easements to provide open space linkages, the Kern River corridor, trail systems and commercial/employment centers (I-1, I-2, I-6, I-8).

97. Discourage the establishment of highly concentrated keeping of animals such as stockyards, feedlots, dairies, hog farms, turkey ranches, etc. (I-1, I-6)

98. Coordinate the development of city and county permit information in a consistent format. (I-1, I-8, I-16)

99. Develop a plan to ensure that all parking lots are 40 percent shaded at maturity to help alleviate "heat island effect." (I-16)

100. Encourage the use of reflective roofing material and other measures that reduce the "heat island effect." (I-8).

101. Consider including within Bakersfield's Sphere of Influence those parcels of land adjacent to the City limits whose development could have significant impacts on the City and to which public facilities and services can be provided by the City.

102. Expand Bakersfield's Sphere of Influence based on the probable physical boundary that the City can reasonably control and service and discourage premature development outside existing communities in unincorporated areas surrounding the City.

103. Encourage the orderly annexation and development of unincorporated areas within Bakersfield's Sphere of Influence which can be developed in accordance with the Metropolitan Bakersfield General Plan and can be adequately served by the City. This policy acknowledges that people affected by annexation proposals are the best ones to determine the needs of their community and whether annexation best meets the needs of their community.

104. As part of the environmental review procedure, an evaluation of the significance of paleontological, archaeological, and historical resources and the impact of proposed development on those resources shall be conducted and appropriate mitigation and monitoring included for development projects.

105. Development on land containing known archaeological resources (i.e., high sensitivity areas) shall utilize methodology set forth, as described necessary by a

qualified archaeologist, to locate proposed structures, paving, landscaping, and fill dirt in such a way as to preserve these resources undamaged for future generations when it is the recommendation of a qualified archaeologist that said resources be preserved in situ.

106. The preservation of significant historical resources as identified on Table 4.10-1 shall be encouraged by developing and implementing incentives such as building and planning application permit fee waivers, Mills Act contracts, grants and loans, implementing the State Historic Building Code and other incentives as identified in the City's Historic Preservation Ordinance.

107. The preservation of significant historical resources shall be promoted and other public agencies or private organizations shall be encouraged to assist in the purchase and/or relocation of sites, buildings, and structures deemed to be of historical significance.

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Land Use Element. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Amend the Zoning Ordinance

The principal method by which cities and counties implement land use policy is through the zoning ordinance. The authority to zone is inherent in the police power delegated to cities by the California Constitution and is authorized by the Government Code.

The zoning ordinance consists of two basic elements: (1) a map which delineates the boundaries of districts in which like uses developed at like standards are permitted and (2) text which explains the purpose of the zoning district, lists permitted uses and those permitted under special conditions, and standards for development (e.g., minimum lot size, density, height, setbacks, lot coverage, parking requirements, and so on). By law (G.C. Sec. 65860), the zoning ordinance must be consistent with the general plan.

The City of Bakersfield and Kern County will routinely evaluate their ordinances and prepare revised zoning ordinances to reflect the land use policies and standards contained in this plan.

The following lists the principal changes to the zoning ordinances that may be necessary.

a) The zoning maps required revision to reflect the land use plan map.

b) Land use zoning and development standards have been changed to reflect general plan land use policies and designations.

c) The floor area ratio approach to height and bulk regulation has been adopted as an alternative to present restrictions of height, bulk and coverage.

2. Subdivision Regulations

Subdivision regulation is required by state law to control the manner in which land is divided. Subdivision map approvals must be consistent with the general plan. Local subdivision regulations should be reviewed and amended as appropriate to reflect the land use goals, objectives, policies and standards.

3. Specific Plans

State law (G.C Sec. 65450) authorizes cities and counties to prepare Specific Plans for the systematic implementation of the general plan for all or part of the area covered by the general plan. Specific Plans are intended to provide more definite specifications of the type of uses to be permitted, development standards (setbacks, heights, landscape, architecture, etc.) and circulation and infrastructure improvements.

4. Development Agreements

Development agreements are authorized by state law to enable a city or county to enter into a binding contract with a developer which assures the jurisdiction as to the type, character and quality of development and additional "benefits" which may be contributed, and assures the developer that the necessary development permits will be issued regardless of changes in regulations.

This ensures that a developer of a multi-phased project who has based his or her project financing on conditions negotiated with the jurisdiction at a particular time would not be adversely affected by subsequent more restrictive regulations. This, in turn, enables the jurisdiction to extract additional contributions and benefits from the developer. This is a technique which may be used in lieu of a specific plan and other large development projects not requiring an increase in buildable area or height.

5. Redevelopment

California, through the Community Redevelopment Law (Health and Safety Code Sections 33000 et. seq.) authorizes cities and counties to undertake redevelopment projects to revitalize blighted areas. An adopted plan provides additional tools to effectuate productive change. These include the use of tax

increment (i.e., amount of additional tax revenue above a "frozen" base generated by increased property valuation resulting from new development in the project area), property acquisition, consolidation of small parcels, joint public-private partnerships, clearance of land and resale to developers, and relocation of tenants. The City of Bakersfield has an adopted Redevelopment Plan for a portion of the downtown area. The county does not use redevelopment law.

6. Development Review

a) In the City of Bakersfield, development and building improvements requiring a building permit (except for single-family residences) are subject to review according to their adherence with city standards, regulations and policy for issuance of a Development Permit. Projects, including Planned Unit Developments and Planned Commercial Developments, are subject to review by the Planning Commission in formal public hearings. All other projects are subject to review and approval by the Site Plan Review Committee or staff. This process provides a forum by which development projects can be assessed for compliance with the goals, policies, and standards of this plan.

b) In the county, any development within the following county zone classifications requires approval of a Special Development Standards Plot Plan Review: R-2, R-3, C-O, C-1, C-2, CH, M-1, M-2, and M-3. This review enables the county to formally review projects for compliance with urban development standards and obtain necessary street dedications and improvements. The review is performed at the staff level, therefore public hearings are not held on these projects. Projects within most other zone classifications are not formally reviewed, rather the project is reviewed at the building permit stage. Urban development standards are not imposed. Site zoning that requires a Precise Development Plan or Conditional Use Permit are discretionary projects that must be found consistent with the general plan.

Projects considered ministerial are not reviewed for consistency with the general plan, whereas discretionary projects must be consistent with the general plan.

7. Environmental Review

Local guidelines for project processing shall reflect California Environmental Quality Act (CEQA) Guidelines which state that the environmental effects of a project must be taken into account as part of project consideration.

8. Design Review

The goals, objectives, policies and standards contained in the Land Use Element encourage architectural and site compatibility in designated areas.

Procedures of the respective jurisdictions will provide the vehicle by which the concept is implemented. These procedures should encourage the use of various water elements, private courtyards and landscaped spaces to provide enhanced opportunities for formal and informal leisure use and activities.

9. Code Enforcement

The City of Bakersfield and County of Kern shall maintain an on-going program of code enforcement to help maintain neighborhoods and enhance economic vitality.

10. Economic Development

A coordinated economic development program would contribute to successful implementation of land use policies. This will include incentives for the development of low and moderate income housing and the attraction of new businesses and industry to the metropolitan area. It may also include low interest loans and grants for commercial and residential renovation and rehabilitation. Investigate programs which provide incentives to create in-fill and re-development projects.

11. Capital Improvements

The Capital Improvement Program is required to be consistent with the general plan and applicable specific plans. Appropriate plan proposals are programmed into city and county Capital Improvement Programs. Revenue sources may include general fund monies, general obligations bonds, benefit assessment districts, subventions and tax increment generated by redevelopment.

12. Review of discretionary development projects proposing urban densities and land use intensities shall consider the ability of local jurisdictions to provide logical, economic extensions of urban services to such development.

13. Permit small and large family day care homes in all residential land use designations.

14. Investigate the feasibility of establishing a child care coordinator position to work with child care providers and new commercial/industrial development for the provision of child care programs.

15. Review General Plan Amendment proposals to urban uses in accordance with Chapter V Conservation/Soils and Agricultural Policy No. 14.

16. Create or amend tree and landscape ordinances which result in increased shade canopy to create a healthy, vibrant, sustainable urban environment.

17. Through joint City-County decision-making forums, continue to identify inconsistencies in urban services and concentrate efforts to be consistent.

CHAPTER III - CIRCULATION ELEMENT

STATUTORY REQUIREMENTS:

Government Code Section 65302(b) requires a circulation element in all city and county general plans, as follows:

> A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and facilities, all correlated with the land use element of the plan.

As discussed in the State Office of Planning and Research "General Plan Guidelines (1998)," the circulation element is an infrastructure plan addressing the circulation of people, goods, and utility systems. The circulation element must directly correlate with the land use element. Mandatory circulation issues are: major thoroughfares, transportation routes, terminals and other local public utilities and facilities. This circulation element contains the following:

- Identification and analysis of circulation needs and issues;
- A statement of goals, objectives and policies based on the total circulation needs of the community;
- A diagram, map or other graphic representation showing the proposed circulation system;
- A description of the proposed circulation system and the interrelationships among system parts;
- Standards and criteria for the location, design, operation and levels of service of circulation facilities; and
- A guide to the implementation of the circulation system.

Several travel modes comprise the Bakersfield transportation system. Persons travel by autos, buses, trains, airplanes, bicycles and on foot. Freight transportation modes include trucks, trains, and airplanes. Other facilities include canals to move water and pipelines and power lines to transport energy.

Among these many systems, the street system is the most visible and most important to Bakersfield residents. Over 90% of all travel in the city is by automobiles and trucks. General plan development, therefore, has been focused largely on the street system. However, policies are included for all modes of travel in recognition of the roles they play in serving the diverse needs of Bakersfield residents. The following sections discuss the background and important issues of each mode. Policies are listed for each mode to guide future development.

CHAPTER III - CIRCULATION ELEMENT

A. STREETS

OVERVIEW OF EXISTING CONDITIONS

The street system has been, and will continue to be, the most important element of the transportation system. Streets have been developed in a grid pattern with arterials spaced at one-mile intervals, except in the central area where spacing is closer. Typically, collector streets are spaced at half-mile intervals between arterials, also in a grid pattern. Motorists use these collectors for through travel to some extent, avoiding parallel arterials. In some cases, collectors in newer areas are aligned in irregular patterns to discourage through traffic. Discontinuity and disruption of the grid system can and has overburdened portions of the system.

Overlaid on the basic network of arterials and collectors is a limited freeway system. Route 99, with four to six travel lanes, is the only existing north-south freeway. As the major Central Valley connector in California, Route 99 carries large numbers of through vehicles in addition to local Bakersfield traffic. Route 58 is an east-west freeway linking Route 99 with cities east of Bakersfield. It carries much less traffic than Route 99. The other freeways in the metro area are the portion of Route 204 between Route 99 and Route 58 and the portion of Route 178 between M Street and Fairfax Road. Because of its location in a highly traveled corridor, Route 178 carries large traffic volumes despite its lack of continuity.

The City of Bakersfield, Kern County, and Caltrans all count daily traffic volume on a regular basis. Figure III-1 shows recent selected counts on the freeways and arterials. The City of Bakersfield counts are from 2000, and the Kern County and Caltrans counts are from 1999. Traffic volume on most streets in the metro area is relatively light, although some segments become busy at times. Streets with relatively heavy volume (greater than 30,000 vehicles per day) include the following:

STREET	AADT (Annual Average Daily Traffic)
Freeway 99, California to S.R. 178	109,000
Freeway 58, from 99 to Union Avenue	72,000
Highway 178, from 99 to M Street	41,500
California Avenue, from Real Road to 99	35,000
Rosedale Highway, from Fruitvale Avenue to 99	41,000
Ming Avenue, from Stine Road to Castro Lane	37,000
Union Avenue from Brundage Lane to 58	38,500
Olive Drive, Knudsen to Freeway 99	32,600
Freeway 99, Ming Avenue to White Lane	86,000
Freeway 178, M Street to Union Avenue	58,000

In general, the existing street system operates smoothly. Points of congestion appear, however, as a result of two phenomena. The city is increasing in population and geographical area, thereby placing greater demands on the street system. Secondly, physical barriers have

LEGEND

4 = Daily Volumes In Thousands

- Freeways
- Arterials
- Collectors
- Metropolitan Bakersfield Boundary Line

Note:
Daily Traffic Volumes listed on this exhibit represents data provided by the City of Bakersfield. Data was not avaialable for all roadway segments within Metropolitan Bakersfield.

NORTH

5000 0 5000 10000 Feet

Source: GIS Data, City of Bakersfield

Existing (2000) Daily Traffic Volumes

RBF GIS JN: 10100548 June 18, 2002

FIGURE III-1

disrupted the grid of arterial streets and the freeway system, leading to discontinuities. Physical barriers include the Kern River, canals, railroad tracks, and (in the case of freeways) established residential neighborhoods.

The city and county both have standard design specifications for arterial, collector, and local streets, although the standards are somewhat different. Standard arterials are 90 feet wide in 110 feet of right-of-way. In this 90 feet, the city design calls for six lanes, and the county has four lanes. Both have a raised median; the county allows parking and the city does not. Standard collector streets (both city and county) have four lanes, 68 feet of pavement width in 90 feet of right-of-way, with parking and no median. Standard local streets are 36 to 44 feet wide. Many arterial and collector streets, however, are smaller than the standard designs because they were built before the standards became effective. These sub-standard streets also contribute to congestion. As properties fronting the sub-standard streets develop or redevelop, the full width is required, resulting in streets with alternating wide and narrow stretches. Eventually the street will be full width, but the process takes several years.

To determine how well the street system is presently operating, traffic volume can be compared to roadway capacity. The table below shows street capacities, using standard traffic engineering assumptions.

ROADWAY CAPACITIES

ROADWAY TYPE	DAILY TRAFFIC CAPACITY
8-lane freeway	150,000 vehicles
6-lane freeway	112,500 vehicles
4-lane freeway	75,000 vehicles
6-lane arterial	60,000 vehicles
4-lane arterial	40,000 vehicles
4-lane collector	30,000 vehicles
2-lane collector	15,000 vehicles

* Based on Highway Capacity Manual, 1985, Highway Research Board.

Any street segment with a volume-to-capacity ratio greater than .80 will experience some degree of congestion. Figure III-2 shows street segments with less than 20 percent of capacity remaining and shows other parts of the street system with circulation problems.

Congestion occurs on numerous streets where they cross Highway 99, including Olive Drive, Rosedale Highway, California Avenue, Stockdale Highway, Ming Avenue, Planz Road, and White Lane. Freeway interchanges with ~~C~~ congestion or other problems include Golden State/99/Airport Drive, 178/Mt. Vernon, I78/Oswell, 99/Rosedale, 99/California, 99/White and 58/Union Avenue. Other parts of the circulation system where volume is approaching capacity include the following:

1. Rosedale Highway near Highway 99
2. Highway 178 from Highway 99 to M Street
3. Oak Street from California Avenue to 24th Street
4. Highway 99 between Rosedale Highway and California Avenue

5. Stockdale Highway near California Avenue
6. Ming Avenue from New Stine Road to Valley Plaza
7. California Avenue around Highway 99
8. Real Road between California Avenue and Ming Avenue
9. Coffee Road across the Kern River
10. Roberts Lane just east of Airport Drive

Signalized intersections are the primary constraints to capacity on the arterials. Figure III-2 also shows the sixteen busiest intersections in the metro area. The busiest is the Stockdale Highway/California Avenue intersection, which handles a volume of 63,400 vehicles per day. Other busy intersections are concentrated along Ming Avenue, Oak Street, Chester Avenue, and Union Avenue. Many of these intersections are congested during peak hours. Others have sufficient turn lanes so that traffic doesn't back up, but cycle lengths are long and most vehicles experience delay. In either case, these intersections represent bottle-necks.

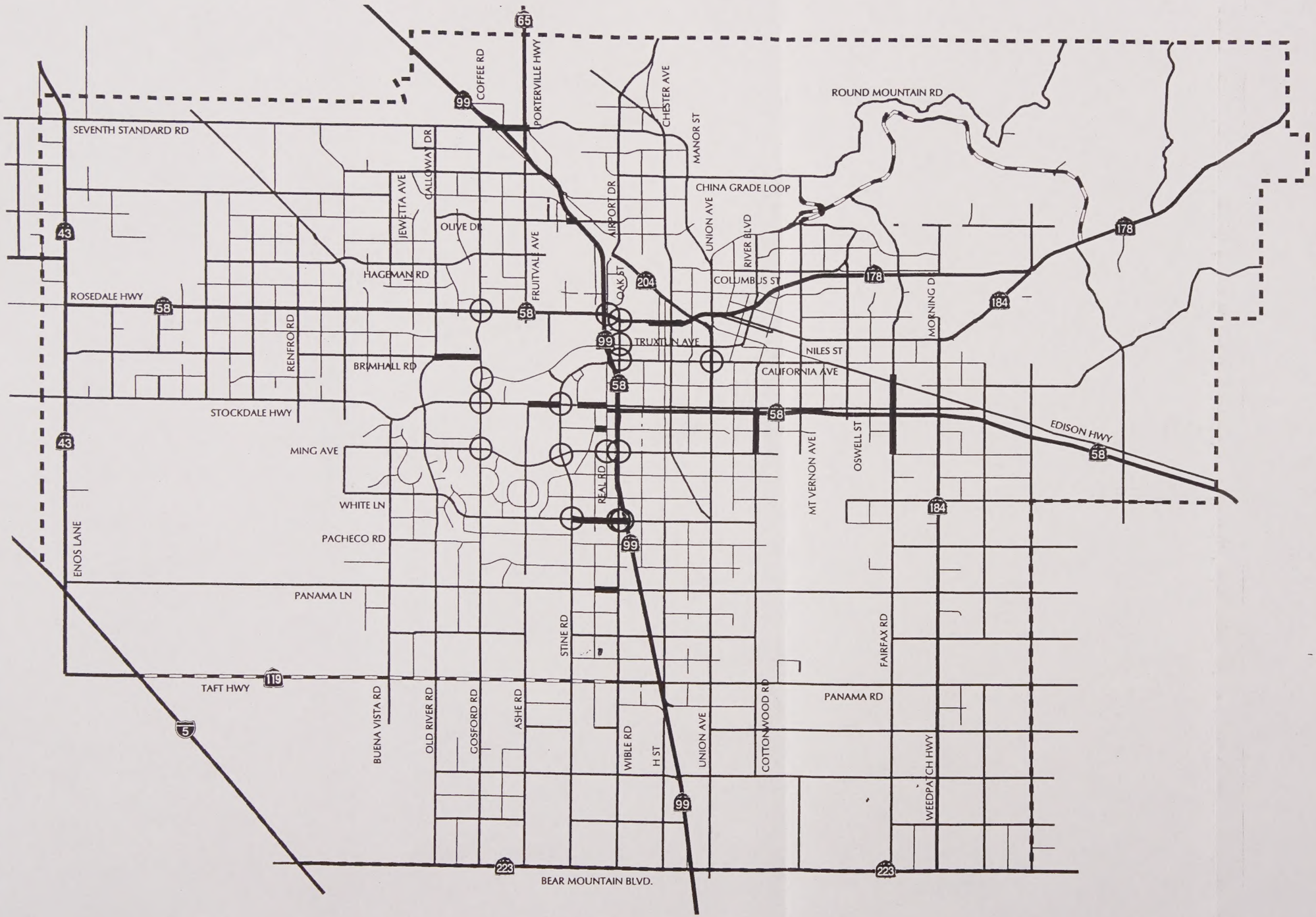
The land use plan, when built out, will add significantly to the area's population and employment base. Existing areas of the city will increase in land use intensity, and to a larger extent, geographic expansion of the city will occur. Major expansion areas include the southwest, northwest, and northeast. This will lead to an accompanying increase in travel. Specifically, the plan calls for an increase of **154,000** households and **244,000** jobs. These increases will cause traffic volume to more than double. Daily vehicle trips will increase by **1.6 million** to a total of **2.6 million.**

STREET CIRCULATION ISSUES

A detailed analysis of existing traffic conditions and projected development indicates that the circulation plan must address the following specific issues:

High and increasing demand in the travel corridors connecting the northeast and the southwest, the northwest and the southwest, and the northwest and the northeast.

- Need for more high-speed freeways.
- Assessing the traffic impacts caused by new development.
- Congestion on Route 99 and parallel streets.
- Congestion on California Avenue between Stockdale Highway and Oak Street, on Rosedale Highway near Route 99, and on Ming Avenue near Route 99.
- Deficient right – of- way widths on many arterials and collectors.
- Methods to secure funding for the circulation system, including high-speed facilities.
- Difference between city and county street standards.
- Lack of signal synchronization along arterials.



LEGEND

- 16 Busiest Intersections
- Segments with Existing V/C Greater Than 0.80 Based on ADT
- Freeways and Highways
- Expressways
- Arterials
- Collectors
- Metropolitan Bakersfield Boundary Line

NORTH

5000 0 5000 10000 Feet

Source: GIS Data, City of Bakersfield

Existing (2000) Traffic Congestion Locations

JN: 10100548
June 18, 2002

FIGURE III–2

- A proliferation of driveways and traffic signals on arterials.
- Through traffic in residential neighborhoods.
- Unattractive streets which lack adequate landscaping.

OVERVIEW OF CIRCULATION PLAN

A Circulation Element has been devised to avoid the congestion that would result from buildout of the General Plan. Upgrades and extensions are planned for the freeway and arterial systems as described below. Figure III-3 shows the ultimate street system for metropolitan Bakersfield. Right-of-way should be reserved whenever possible for the ultimate freeway system.

FREEWAYS

Seven new freeways are planned; the Crosstown Freeway, the Westside Parkway, the West Beltway, the South Beltway, the East Beltway, as well as a new alignment for State Route 58. These future freeway corridors are shown conceptually in Figure III-3. Specific Plan Lines must be adopted for the corridors which have not been adopted, to assist in right-of-way preservation. If permanent structures could be avoided within these corridors, future freeway construction would be simpler and less expensive.

The Crosstown Freeway (also called the Centennial Corridor) would extend from State Route 178 near Baker Street, around the south side of downtown Bakersfield, to State Route 99. The State Route 178 Corridor Study, prepared jointly by KernCOG, the City of Bakersfield, and Caltrans, recommended this freeway alignment. This alignment was also recommended in the Bakersfield Systems Study conducted jointly by KernCOG, the City of Bakersfield, Kern County, and Caltrans.

The Westside Parkway is a continuation of the Crosstown Freeway extending westerly across State Route 99 along the north side of the Kern River to Interstate 5. The first phase of this freeway would only extend westerly to Stockdale Highway, west of Renfro Road. A Specific Plan Line has been adopted by the City of Bakersfield and Kern County for this first phase. The remaining section to Interstate 5 would be constructed in a later phase. The alignment of the Westside Parkway was recommended in the Bakersfield System Study.

The Crosstown Freeway and the Westside Parkway would provide necessary capacity for east-west travel and relieve congestion on State Route 178 (24th Street Corridor), State Route 58 (Rosedale Highway), California Avenue, and other existing east-west routes.

The West Beltway would link State Route 99 from north Bakersfield with Interstate 5 at the South Beltway, passing through the western portion of metropolitan Bakersfield. The County has adopted portions of the alignment for the West Beltway as a Specific Plan Line. This freeway would provide a bypass and thus relief to State Route 99 and provide an important link across the Kern River from southwest Bakersfield to the Westside Parkway.

The South Beltway extends from State Route 58 around southeast Bakersfield to Interstate 5, near State Route 119 (Taft Highway). This corridor would aid local circulation, as well as provide a bypass of State Route 58 through the City for regional and interstate trips. A

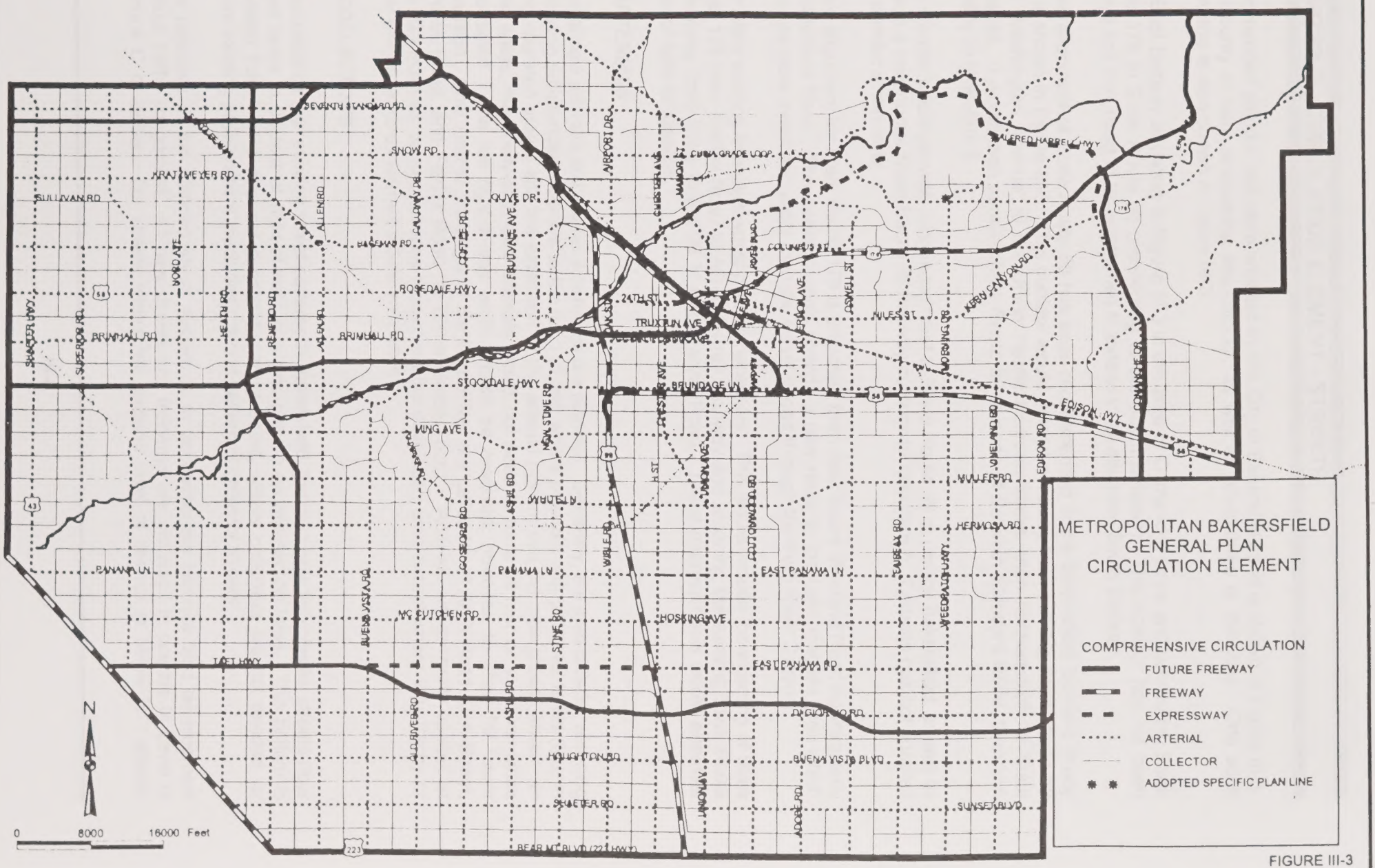


FIGURE III-3
DATE: 4/15/02
2010 comp circ plan

recommended corridor has been adopted by the City of Bakersfield and is shown in Figure III-3. The County of Kern is studying this corridor, as well as alternatives at this time. One such alternative is also shown in Figure III-3.

The East Beltway is shown in Figure III-3 in the area of Comanche Drive and connecting State Route 178 to State Route 58 (connecting to the South Beltway). This corridor has not been studied and may need to be lengthened to extend to an alternate South Beltway.

A new alignment of State Route 58 has been recommended in the Bakersfield Systems Study and is shown in Figure III-3. This corridor would extend northerly from existing State Route 58 near Washington Avenue, to the Union Pacific Railroad tracks, then northwesterly to State Route 99. It would then parallel State Route 99 to north of Seventh Standard Road, then turn westerly to Interstate 5.

This corridor would provide congestion relief to State Route 99 in central Bakersfield, as well as provide a continuous State Route 58 freeway corridor to Interstate 5. Caltrans has not adopted this corridor at this time.

A new alignment for State Route 178 is proposed from near future Vineland Road northeasterly to Rancheria Road. This corridor would provide a new route to the Lake Isabella area which would be more direct and wider than the existing road through the Kern River Canyon.

Upgrading existing freeways would also be necessary. This would include the widening of State Route 178 from Fairfax Road to Alfred Harrell Highway and widening the existing State Route 58 freeway from State Route 99 to Cottonwood Road. These improvements would eliminate areas of spot congestion.

ARTERIALS

Several new arterials and arterial extensions are planned. Generally, the plan calls for widening of existing substandard arterials to the full 110 feet where possible with six travel lanes (four in unincorporated areas) and the extension of the arterial system into the new growth areas. In some areas, the newly-extended arterials would not need to have all four or six travel lanes constructed. The full right-of-way width should be reserved, however, to allow for future expansion. New arterial crossings of the Kern River are called for at Allen Road, Oak Street, Mohawk Road, and Fairfax Road (to China Grade Loop). Arterials are generally spaced at one-mile intervals on section lines throughout the developed area except where topography or other unique features warrant a different pattern.

COLLECTORS

In accordance with existing street patterns in Bakersfield, the plan calls for collector streets (four travel lanes in 90 feet of right-of-way) in a grid pattern on mid-section lines. This pattern is deviated from where physical constraints are present, where collectors are not needed, or where existing development precludes the grid pattern of collector streets.

The objective of the planned street system is to accommodate planned land development without traffic congestion. All new streets and freeways are projected to operate at Level of Service C or better. On streets where the existing level of service is below "C", special

consideration to identify mitigation measures to prevent and/or delay degradation of the existing level of service would be required.

GOALS AND POLICIES:

The following presents the goals and policies for streets in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide a safe and efficient street system that links all parts of the area for movement of people and goods.

2. Provide for safe and efficient motorized, non-motorized, and pedestrian traffic movement.

3. Minimize the impact of truck traffic on circulation, and on noise sensitive land uses.

4. Provide a street system that creates a positive image of Bakersfield and contributes to residents' quality of life.

5. Provide a system of freeways which maintains adequate travel times in and around the metropolitan area.

6. Provide a local street network that contributes to the quality and safety of residential neighborhoods and commercial districts.

7. Develop and maintain a circulation system that supports the land use plan shown in the general plan.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions. For ease of implementation, policies have been arranged with respect to circulation topics they influence. Those which cannot be categorized by specific topic have been placed in a "General" category.

DESIGN

1. Classify streets in the following manner (I-1):

   freeways provide service to through traffic exclusively with no access to abutting property and no at-grade intersections.
   expressways are arterial highways with at least partial control of access which may or may not be divided or have grade separations at intersections and may be an interim facility for an ultimate freeway.

arterials are used primarily by through traffic, with a minimal function to provide access to abutting property.

collectors function to connect local streets with arterials and to provide access to abutting property.

locals are exclusively for property access and through traffic is discouraged.

2. Establish the following standards for the street system (I-2)

FACILITY TYPE	LANES	RIGHT-OF-WAY WIDTH	PAVEMENT WIDTH	CURB PARKING
Freeway/Expressway	210' - 300' minimum *			No
Arterials on State Hwy	6	110' - 130'	90' plus	No
Arterial w/bike lanes	6	110'	96'	No
** Arterial w/ bike lanes	4	110'	96'	Yes
Arterial w/o bike lanes	6	110'	90'	No
** Arterial w/o bike lanes	4	110'	90'	Yes
Collector w/ bike lane w/ 2-way left turn	4	90'	74'	No
Collector w/ bike lane	4	90'	74'	Yes
Collector w/o bike lane w/ 2-way left turn	4	90'	68'	No
Collector w/o bike lane	4	90'	68'	Yes
LOCAL STREET Commercial/Industrial	2	60'	44'	***
LOCAL STREET Residential Collector ****	2	60'	44'	Yes
LOCAL STREET Residential	2	60'	40'	Yes

* Precise geometrics will be established through specific engineering studies.

** In incorporated areas, no parking is allowed along arterials within new development. In unincorporated areas, no parking zones will be determined by the traffic engineer.

*** No parking zones will be determined by the traffic engineer.

**** This local residential collector standard applies to local street where vehicular traffic is expected to exceed 750 vehicles per day or where its length exceeds one-half mile.

3. Provide additional right-of-way and pavement width to accommodate turn lanes at intersections (I-2).

4. Provide additional right-of-way and pavement width at other locations for turn lanes, bus lanes, etc., as needed, based on engineering study (I-3).

5. Place traffic signals to minimize vehicular delay (I-6).

6. Design and locate site access driveways to minimize traffic disruption where possible considering items such as topography, past parcelization and other factors (I-7).

7. Minimize direct and uncontrolled property access from arterials (I-8).

8. Limit full access median breaks on arterials to a maximum of three per mile and include left-turn lanes at each (I-10, I-11).

9. Consider the construction of grade separations for intersections unable to meet minimum level of service standards (I-11).

10. Design local streets to conform to topography. Allow for deviation from "grid" system on local streets when they do not interfere with other traffic policies and traffic flows (I-34).

11. Design local collector street systems to minimize through traffic movements and include short block lengths to discourage excessive speeds (I-34).

IMAGE

12. Maintain the integrity of the circulation system (I-12).

13. Continue designation and signage of specific streets as official truck routes, within incorporated areas (I-13).

14. Provide continuous truck routes within incorporated areas that provide access to designated industrial areas (I-13).

15. Prohibit trucks from non-truck routes within incorporated areas except as necessary for direct property access for pick-up and delivery (I-13).

16. Require that truck access to commercial and industrial properties be designed to minimize impacts on adjacent residential parcels (I-14).

17. Require buildings expected to be serviced by delivery trucks to provide off-street facilities for access and parking (I-14).

18. Provide and maintain landscaping on both sides and in the median of arterial streets within incorporated areas. In unincorporated areas, landscaping within

road right-of-way may be allowed and shall be limited to low shrubs; blank irrigation conduit only will be provided within the median of arterial streets (I-15).

19. Provide and maintain landscaping on both sides of collector streets. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs (I-16).

20. Prohibit parking on new arterials in incorporated areas. In unincorporated areas, prohibit parking when traffic studies warrant elimination. Allow parking on collectors and on residential streets (I-17).

21. Route traffic around, rather than through, pedestrian-oriented areas (I-18).

22. Design transportation improvements to minimize noise impacts on adjacent uses (I-19).

FREEWAYS

23. Provide freeways in a manner similar to that shown on the Circulation Plan Map. Actual alignments to be determined by specific corridor studies (I-20).

24. Identify route alignments and right-of-way needs (I-21).

25. Identify interchange locations and preliminary designs (I-5, I-21).

26. Preserve freeway and interchange rights-of-way consistent with corridor study alignments and specifications (I-22).

27. Work with Caltrans to have the freeways constructed (I-23).

28. If no specific line has been adopted, future road reservations or other accommodations may be required to preserve freeway/expressway alignments as shown on the circulation map (I-21, I-22).

29. Upon the adoption of a specific plan line for a freeway/expressway alignment, developers will be required to make reservations of right-of-way preserving the alignment on any subdivision map.

    In addition, development restrictions on general plan amendments, zone changes and the issuance of building permits will also be required (I-24).

30. The need for a north/south freeway/expressway and an east-west freeway (178) are conceptually shown on the circulation map. Alternative alignments are under study and upon completion of corridor studies the actual alignment will be adopted and dedications or reservations of right-of-way may be required (I-22, I-24).

GENERAL

31. Where existing street right-of-way is greater than necessary for desired purposes, dispose of surplus right-of-way in a manner consistent with state and local laws (I-4).

32. Reserve or acquire right-of-way for all future transportation facilities in conformance with the Circulation Plan Map (I-24).

33. Provide new transportation facilities as needed based on existing usage and future demand (I-25, I-26, I-27).

34. Minimize the impacts of land use development on the circulation system. Review all development plans, rezoning applications, and proposed general plan amendments with respect to their impact on the transportation system, and require revisions as necessary (I-26).

35. Require new development and expansion of existing development in incorporated areas to fully provide for on-site transportation facilities including streets, curbs, traffic control devices, etc. Within unincorporated areas street improvements will be determined by County Ordinance (I-27, I-29).

36. Prevent streets and intersections from degrading below Level of Service "C" where possible due to physical constraints (as defined in a Level of Service Standard) or when the existing Level of Service is below "C" prevent where possible further degradation due to new development or expansion of existing development with a three part mitigation program: adjacent right-of-way dedication, access improvements and/or an area-wide impact fee. The area-wide impact fee would be used where the physical changes for mitigation are not possible due to existing development and/or the mitigation measure is part of a larger project, such as freeways, which will be built at a later date (I-28, I-29).

37. Require new development and expansion of existing development to pay for necessary access improvements, such as street extensions, widenings, turn lanes, signals, etc., as identified in the transportation impact report as may be required for a project (I-30, I-31, I-32).

38. Exempt the downtown Bakersfield redevelopment area and small infill projects from the Level of Service Standard to facilitate infill projects and downtown redevelopment and in recognition of the higher traffic levels inherent to a vital central core (I-31).

39. Require new development and expansion of existing development to pay or participate in its pro rata share of the costs of expansions in area-wide transportation facilities and services which it necessitates (I-32, I-33).

40. Provide new local street systems that are logical and comprehensible and systems of street names and addresses that are simple, consistent, and understandable (I-34, I-35).

41. Plan alignments for local streets to permit economical and practical patterns, shapes, and sizes of development parcels (I-34).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting streets. This listing is not to limit the scope of implementation of this plan. Federal, state and area wide agencies will also be involved. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Periodic review and if needed, revision of adopted ordinances establishing a street classification system for the city and county in conformance with the Circulation Element.

2. Revise city and county street standards as necessary to conform with standards set forth under the Circulation Element. Endorse, adopt or incorporate as appropriate standards from special studies, such as the westside corridor study for design of freeways, highways and expressways.

3. Evaluate need for additional right-of-way at certain locations at time of establishment of plan lines and/or street design through an engineering study. Consult with local transit authority to determine need for bus lanes.

4. Evaluate and respond to requests for removal of public streets in conjunction with development proposals.

5. Continue use of current Caltrans manuals as the basic standard for engineering design.

6. Continue use of interconnection and progressive timing when installing new signals. Periodically examine operation of existing signals for possible improvement.

7. Review all site plans for compliance with adopted drive approach design standards.

8. Review site plans, rezonings, and subdivision requests, with respect to access from arterials. Consider conditions of approval to minimize uncontrolled property access.

9. Periodic review and if needed, revision of adopted city and county subdivision ordinances to control access on arterials.

10. Periodic review and if needed, revision of adopted standard for median breaks and apply during the development review process.

11. Monitor traffic volumes and establish specific plan lines and preliminary designs as need becomes apparent. Conform to design standards for median breaks on major arterial streets and work with Separation of Grade District to establish list of grade separation projects.

12. Continue the pavement monitoring system in the planning area for preventive maintenance, resurfacing, and reconstruction.

13. Revise the city's existing truck route ordinance, as needed.

14. Amend the city and county zoning ordinances as needed to regulate truck access on properties adjacent to residential areas.

15. Amend city and county zoning ordinances as needed to require new development to landscape and maintain arterial street frontage. Within incorporated areas, program median landscaping in Capital Improvement Program and maintenance in annual City Community Services Department budget. Adhere to adopted minimum landscaping standards.

16. Amend city and county zoning ordinances as needed to require new development to landscape and maintain street frontages. Establish minimum landscaping standards, which encourage the use of trees and flowers, lighting, street furniture, art signage and flags. Promote use of surface materials that enrich paving options on streets, sidewalks and curbing.

17. Maintain city and county street standards to conform with parking requirements set forth in the Circulation Element. Remove parking from existing arterials, and major collectors when traffic studies indicate removal is warranted to improve safety or increase capacity.

18. Consider pedestrian sensitive areas when planning circulation systems.

19. Assess potential noise impacts in street design, and to the extent feasible, route streets to minimize impacts.

20. Construct designated freeways as warranted by travel demand. Seek alternative funding sources, in addition to traditional funding methods.

21. Participate in city and county route alignment, travel demand studies, and interchange studies in conjunction with Caltrans and Kern COG.

22. Establish specific plan lines for all freeway alignments and keep the rights-of-way clear of structures. Work with Caltrans to have the routes officially adopted.

23. Seek and utilize funding for freeway right-of-way acquisition and construction. Work with developers and land owners for right-of-way acquisition dedication.

24. Delineate and adopt specific plan lines for all streets shown on the Circulation Plan Map as need becomes apparent.

25. Maintain records of existing traffic volume and cumulative projections of traffic from new development to schedule projects for the Capital Improvement Program.

26. Establish guidelines for project design review based on traffic engineering standards (e.g., driveway design, on-site circulation) and the Level of Service Ordinance (see below).

27. Require development to provide all on-site transportation facilities as determined by city ordinance. In unincorporated areas, improvements for all streets will be determined by county ordinance.

28. Periodic review and if needed, revision of adopted ordinances that includes a Level of Service standard for the city and county to include a definition of Level of Service "C", procedures for how it is measured, and mitigation measures to keep from exceeding the standard.

29. Periodic review and, if needed, revision of adopted guidelines for preparation of transportation impact reports, definition of undesirable impacts, and identification of mitigation procedures.

30. Implement adopted requirements for access improvements.

31. Periodic review and, if needed, revision of adopted ordinances that establish a minimum size standard for projects under the Level of Service standard. Also, include the downtown redevelopment project area boundaries for certain exemptions in the ordinance.

32. Implement city and county subdivision ordinances for development to pay for or do street widenings. In cases where fees are paid but widening is not yet necessary, the fees should be held in a separate account dedicated to future widening of the specific street in question. In those cases developer may be allowed to construct facilities in lieu of paying fees.

33. Periodic review and, if needed, revision of adopted Transportation Impact Fee Ordinance for the city and county, which specifies the area wide impact fee schedule and how the fees will be used.

34. Periodic review and, if needed, revision of adopted city and county subdivision ordinances to maintain standards for comprehensible street systems and street names.

35. Periodic review and, if needed, improvement of the planning area's house numbering system.

policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide planning area residents with a choice of travel modes.

2. Provide a street system and land development policies that support public transportation.

3. Provide cost effective public transportation services.

4. Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.

5. Enhance rail service capacities and usage in the planning area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Consider transit service issues in the design of the arterial and collector street system (I-1).

2. Consider for bus turnouts along arterials and collectors where appropriate (I-1).

3. Consider transit service issues in the site plan review process (I-2).

4. Coordinate with GET and Kern Transit to locate bus stops as close as possible to the facilities they serve (I-3).

5. Work with GET and Kern Transit to provide scheduled public transit to serve metro area residents (I-3).

6. Work with the Consolidated Transportation Service Agency (CTSA) to provide social services transportation to metro area residents (I-4).

7. Encourage the development of a multi-modal public transportation terminal (I-5).

8. Encourage businesses and government to use flexible or staggered work hours so that travel demand is spread more evenly throughout the day (I-6).

9. Support efforts to promote ridesharing (I-7).

B. TRANSIT

OVERVIEW OF EXISTING CONDITIONS

Public transportation in Bakersfield includes local buses, intercity buses, AMTRAK, and paratransit service. For the purpose of the general plan, the rail freight system is also included in this category.

The largest system is GET (Golden Empire Transit), which is the local bus operator. GET operates eighteen routes throughout the metro area and carries 23,000 passengers per day. This amounts to one percent of total travel in the area.

Intercity bus operators include Greyhound, Orange Belt Stages, Airport Bus of Bakersfield, and Kern County. Kern County provides service between Bakersfield and rural communities, such as Lamont and the Kern River Valley, while the private carriers serve other major cities.

AMTRAK provides rail service to and from Bakersfield and the Central Valley cities to the north. The AMTRAK station is located at Truxtun Avenue and S Street. Paratransit providers include the taxi system and various social service agencies providing specialized transportation to their clients.

Two major railroads provide freight service to Bakersfield: Burlington Northern-Santa Fe and Southern Pacific. The Burlington Northern-Santa Fe yard is located downtown between Truxtun and California Avenues, and the Southern Pacific yard is located in East Bakersfield between Kentucky and Sumner Streets.

TRANSIT ISSUES

The transit issues relevant to the General Plan are as follows:

- Buses are being run on local residential streets.
- Buses find it difficult to serve the new closed-block design subdivisions.
- New development is lacking in design to accommodate bus stops.
- The city would like to have an intermodal transportation terminal downtown.
- Routing of potential high-speed (San Francisco to Los Angeles) rail system and location of future terminals.

GOALS AND POLICIES

The following presents the goals and policies for transit in the planning area. Implementing programs are contained in the following sub-section. At the end of each

10. Local agencies should cooperate in studies to pursue the establishment of high-speed rail service for the plan area, including consensus on potential routes and terminal locations.

10. Work with AMTRAK to maintain and improve rail passenger service and facilities in Bakersfield (I-8).

11 Work to provide grade separations at all arterial/railroad crossings (I-10).

12 Support efforts to develop high-speed rail facilities to service the plan area (I-11).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting transit. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Continue consultation with GET and Kern Transit in the design of new arterial and collector streets and in the review of subdivision plans and site plan review for large development projects.

2. Require bus stops as conditions of development in compliance with and based upon metro-adopted state-mandated public transit master plans.

3. Participate (city and county) in GET route and schedule planning activities.

4. Participate (city and county) with the Consolidated Transportation Services Agency in schedule planning activities.

5. Adopt the conclusions and provisions of the intermodal terminal study, and encourage prompt development of the terminal.

6. Coordinate (city and county) with Kern COG in publicizing the merits of flexible work hours.

7. Work with Kern COG to establish and maintain park-and-ride lots and to publicize the ridesharing matching service.

8. Participate with Kern COG (city and county) in AMTRAK service and delivery planning.

9. Continue to work with the Railroad Grade Separation District to establish priority locations and to build the necessary facilities.

C. BIKEWAYS

OVERVIEW OF EXISTING CONDITIONS

Bicycling accounts for a small proportion of total miles traveled in Bakersfield (less than 2 percent). Nevertheless, the relatively flat terrain and fair weather are conducive to bicycling for transportation to work, recreation, and school. It is estimated that one-third the population utilizes bicycling in one form or another.

Kern County developed and adopted a bikeways plan in the mid 1970's following the energy crisis. The plan called for bike lanes on various streets and exclusive bike paths on canals, along railroad rights-of-way, and along the Kern River. In 1984, Kern COG sponsored a bikeway study for the metro area that called for more on-street bike lanes and fewer paths along canals and railroad rights-of-way. The bike path along the Kern River was retained as a major component of the plan.

Part of the planned bikeway system has been implemented. The bike path along the river is constructed between Stockdale Highway at the Kern River crossing and Gordon's Ferry, and over 30 miles of bike lanes exist along various streets including Stockdale Highway to Cal State Bakersfield and along part of Coffee Road, Calloway Drive, Ming Avenue, Panorama Drive, Chester Avenue, Old River Road, Wible Road and White Lane. The exiting Bikeway Master Plan is contained under Figure III-4.

BIKEWAY ISSUES

The following issues have been identified:

- Encouragement to use bicycles necessitates the provision of bike lanes and bike paths.

- The existing county bikeways plan is outdated in many locations.

GOALS AND POLICIES

The following presents the goals and policies for bikeways in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide a circulation system which recognizes and responds to the needs of bicycle travel.

2. Provide a circulation system that minimizes cyclist/motorist conflicts.

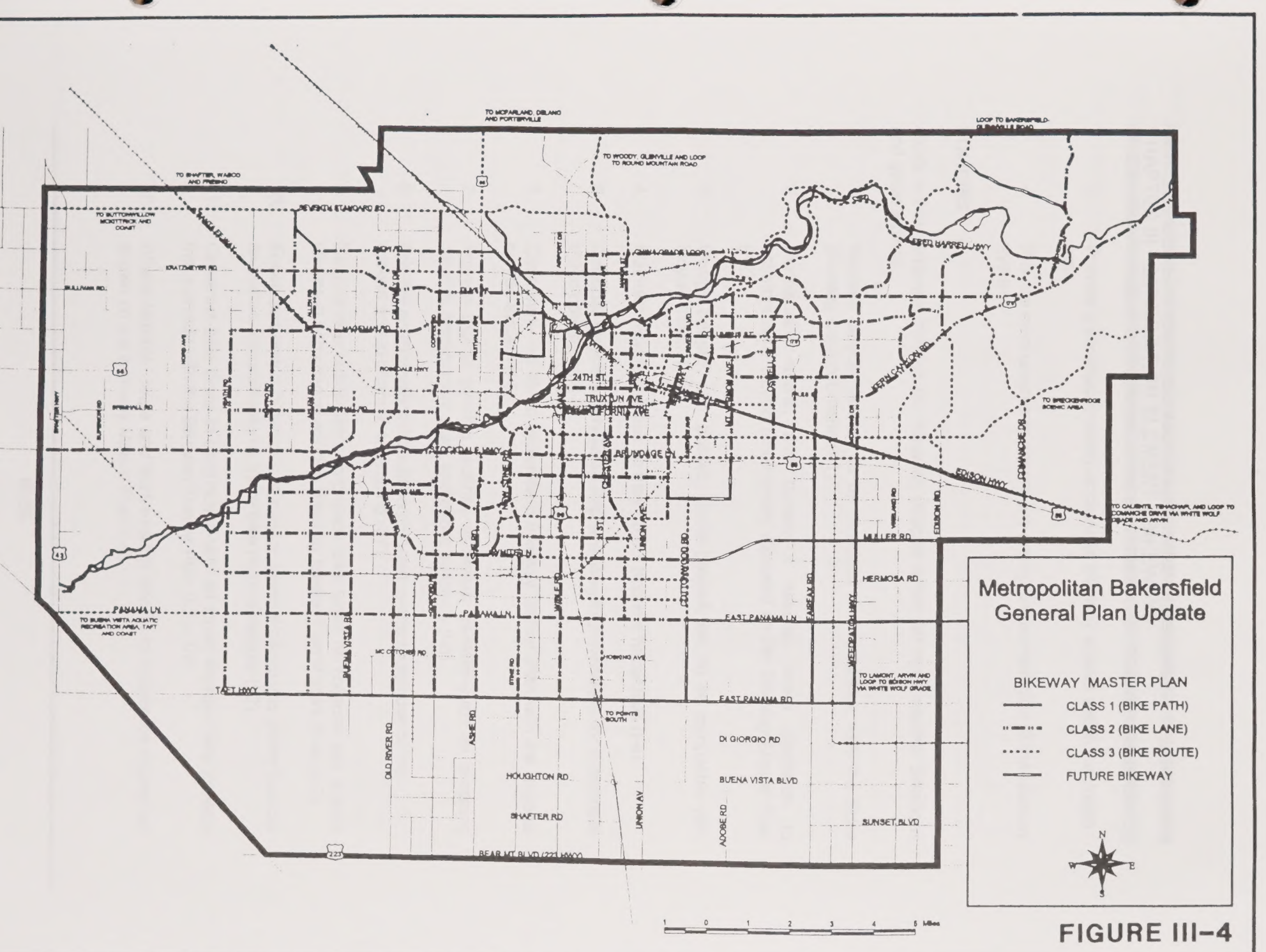

Metropolitan Bakersfield
General Plan Update
BIKEWAY MASTER PLAN
CLASS 1 (BIKE PATH)
CLASS 2 (BIKE LANE)
CLASS 3 (BIKE ROUTE)
FUTURE BIKEWAY
N
W
E
S
TO MCFARLAND, DELANO AND PORTERVILLE
TO WOODY, GLENNVILLE AND LOOP TO ROUND MOUNTAIN ROAD
LOOP TO BAKERSFIELD-GLENNVILLE ROAD
TO SHAFTER, WASCO AND FRESNO
TO BUTTONWILLOW MCKITTRICK AND COALINGA
SEVENTH STANDARD RD
KRATZMEYER RD
BULLWHIP RD
WHITE LANE
RENFRO RD
ASHE RD
ALLEN RD
MANNING WAY
GOSFORD RD
POSEDALE HWY
SHAFTER HWY
BURRIS RD
BRIMHALL RD
ROSEDALE HWY
PANAMA LN
TO BUENA VISTA AQUATIC RECREATION AREA, TAFT AND COALINGA
MC CUTCHEN RD
TAFT HWY
OLD RIVER RD
BUENA VISTA RD
STINE RD
WHITE LN
ASHE RD
HOUGHTON RD
SHAFTER RD
BEAR MT. BLVD (223 HWY)
TO POINTS SOUTH
UNION AV
ADOBE RD
DI GIORGIO RD
BUENA VISTA BLVD
SUNSET BLVD
EAST PANAMA LN
EAST PANAMA RD
HERMOSA RD
MUELLER RD
COTTONWOOD RD
WESTSIDE PKWY
TO LAMONT, ARVIN AND LOOP TO EDISON HWY VIA WHITE WOLF GRADE
CALIFORNIA AVE
TRUXTUN AVE
24TH ST
BRUNDAGE LN
ROSEDALE HWY
PANAMA LN
WHITE LN
11TH ST
UNION AVE
CHESTER AVE
MT. VERNON AVE
OSWELL ST
AIRPORT DR
GOLDEN GATE AVE
CHESTER LN
PANAMA LN
JEWETT AVE
CALIFORNIA AVE
TRUXTUN AVE
24TH ST
BRUNDAGE LN
ROSEDALE HWY
PANAMA LN
WHITE LN
11TH ST
UNION AVE
COTTONWOOD RD
MUELLER RD
HERMOSA RD
EAST PANAMA LN
EAST PANAMA RD
WESTSIDE PKWY
EDISON RD
EDISON HWY
TO CALIENTE, TEHACHAPI, AND LOOP TO COMANCHE DRIVE VIA WHITE WOLF GRADE AND ARVIN
TO BREckenridge SCENIC AREA
COMANCHE DR
1 0 1 2 3 4 5 Miles

FIGURE III-4

3. Provide a continuous easily-accessible bikeway system within the metro area.

4. Provide mechanisms to ensure the prompt implementation of the bikeway system.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Require bicycle facilities to be designed in accordance with the State Bikeway Design Criteria (I-1).

2. Periodically review, and update if needed, street standards to accommodate bicycle lanes where indicated on the Bikeway Master Plan (I-2)

3. Design bridges, over passes, under passes, etc. to be compatible with bicycle travel (I-3).

4. Maintain bicycle facilities so they do not become hazardous (I-4).

5. Consider bicycle safety when implementing improvements for automobile traffic operations (I-3).

6. Coordinate the Metro Bakersfield Bikeway Master Plan with the regional bicycle system (I-5).

7. Provide bicycle parking facilities at activity centers such as shopping centers, employment sites, and public buildings (I-6).

8. Provide an information/education program to encourage use of the system and to promote safe riding (I-7).

9. Require new subdivisions to provide bike lanes on collector and arterial streets in accordance with the Bikeway Master Plan (Figure III-4), (I-2).

10. Encourage new subdivisions to provide internal bike paths where feasible and where natural features make bike paths desirable (I-2).

11. Construct bike lanes in conjunction with all street improvement projects that coincide with the Bikeway Master Plan (I-3, I-10).

12. Where feasible, stripe and sign existing streets to include bike lanes as shown on the Bikeway Master Plan (I-8).

13. Give priority to bikeway construction that will link existing sections of the system (I-9).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting bikeways. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Update, as needed, the public works design specification sheets to conform with State Bikeway Design Criteria.

2. Revise city and county subdivision ordinances as necessary to incorporate bicycle lane requirements.

3. Review all street design plans, including those of Caltrans and the Greater Bakersfield Separation of Grade District, for compatibility with bicycle travel.

4. Include bicycle lanes and public paths on public property in the street maintenance program. Require publicly used bike paths on private property be maintained by a special maintenance district or other entity.

5. Maintain consistency between the policies of the Regional Bicycle Plan and the Metro Bakersfield Bikeway Master Plan.

6. Revise city and county zoning ordinances to address bicycle parking facilities as needed.

7. Produce and distribute to the public a descriptive pamphlet of the existing bikeway system. Ensure that safe riding techniques are taught in the elementary schools.

8. Continue inclusion of bike lane striping in the city's and county's annual Capital Improvement Program.

9. Prioritize bikeway linkages when including bikeway projects in the Capital Improvement Program.

10. Seek alternative methods of funding for the bikeways system.

D. PARKING

OVERVIEW OF EXISTING CONDITIONS

The city and county both wish to accommodate parking off-street. This is done through the zoning ordinances which specify the number of off-street parking spaces that must be provided by new development. Different types of development must provide different numbers of spaces based on their expected parking demand. The goal of the ordinances is to ensure that all cars can be accommodated in off-street parking areas or facilities.

Downtown Bakersfield is the one area that departs from the pattern of specific parking lots associated with each development. Many buildings in the downtown area rely on off-site parking. The city owns and operates several parking lots and one parking structure serving downtown businesses. Private parking structures and lots also exist in the downtown. Due to the existence of the city lots and the greater incidence of walking trips, downtown parking requirements in the zoning ordinance are reduced by 30% to 50%.

PARKING ISSUES

The following parking issues have been identified:

- Periodic review, and update if needed, of parking requirements to address changing parking needs for different types of land uses to ensure sufficient parking is provided.
- The city and county parking requirements are often not in agreement.
- Address downtown parking needs.

GOALS AND POLICIES

The following presents the goals and policies for parking in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide an efficient parking system to respond to the needs of motorists.
2. Satisfy parking requirements in all new developments (residential, commercial, industrial, etc.) through off-street facilities.
3. Preserve and enhance residential neighborhoods through parking policy

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Periodic review and, if needed, revision of adopted minimum parking requirements based on parking demand (I-1).

2. Periodic review and, if needed, revision of adopted stall and aisle widths that are convenient and efficient (I-2).

3. Ensure that adequate on-site parking supply and parking lot circulation is provided on all site plans in accordance with the adopted parking standards (I-3).

4. Discourage the intrusion of non-neighborhood parking in residential areas (I-4).

5. Remove abandoned vehicles promptly from city streets (I-5).

6. Regulate parking of vehicle, boats, trailers, etc. on city streets (I-6).

7. Identify off-site parking needs in activity centers and outline procedures to finance and provide the facilities (I-7)(I-10).

8. Give top priority to satisfying short-term parking needs, i.e., less than or equal to three hours, and second priority to long-term parking needs (I-8).

9. Locate short-term parking to be convenient to the businesses served (I-8).

10. Locate long-term parking on peripheral lands, accessible to arterial streets (I-8).

11. Discourage parking between the sidewalk and buildings in pedestrian sensitive areas (I-9).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting parking.

This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Research parking demand rates and establish a schedule of requirements in the city and county zoning ordinances such that too little or too much parking is avoided. Periodically update the requirements.

2. Research vehicle sizes and mix to establish parking layout and dimension standards to be incorporated into city and county zoning ordinances and periodically update.

3. Review all site plans for conformance with adopted parking standards.

4. Monitor citizen complaints regarding parking; conduct studies as needed, and institute control measures if necessary.

5. Tag vehicles parked longer than permitted and contract with towing companies to remove them under the provisions of local ordinances.

6. Develop and adopt a parking ordinance as needed for the planning area specifying where curb parking is allowed and disallowed and defining the vehicles, etc. to which the ordinance applies.

7. Develop area-specific parking plans for general plan designated activity centers.

8. Incorporate general plan policies related to parking into parking standards.

9. Amend the city and county zoning ordinances to address parking in pedestrian sensitive areas as needed, and incorporate into parking plans for such areas.

10. Provide free and accessible parking in the downtown area through strategically placed large parking structures, open 24 hours to provide overlapping uses; island parking; perimeter parking

E. AIRPORTS

OVERVIEW OF EXISTING CONDITIONS

Two airports lie within the metro area. Meadows Field, the largest and busiest, is a county facility serving passenger and cargo needs. It handles commercial airlines and general aviation. Meadows Field comprises 1,400 acres, with the passenger terminal located on Airport Drive north of Norris Road. Bakersfield Municipal Airpark is a general aviation airport owned by the City of Bakersfield. It is located on Union Avenue north of Planz Road and comprises 93 acres.

Both airports have adopted master plans which call for runway expansion and improvements. In addition, Meadows Field plans to construct a new passenger terminal northwest of its existing location. The two airports will retain their current functions. Bakersfield Airpark will be a general aviation airport, and Meadows Field will be the commercial air carrier airport for Kern County.

AIRPORT ISSUES

The following airport issues have been identified:

- Land use types that are incompatible with airport noise are presently located within the impact zones at Meadows Field and Bakersfield Municipal Airpark.
- Meadows Field needs good regional access via freeways and arterials.

GOALS AND POLICIES

The following presents the goals and policies for airports in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure air passenger and general aviation facilities and services are available to meet citizens' needs.

2. Develop, operate, and maintain Meadows Field and Bakersfield Municipal Airpark to meet aviation needs in the metro area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Maintain master plans for Meadows Field and Bakersfield Airpark (I-1)

2. Ensure compatibility between the general plan, airport master plans and airport land use compatibility plans (I-2).

3. Allow for the establishment of private airports and heliports/helipads (I-43).

4. Encourage and provide for the orderly development of public use airports within the planning area and prevent the creation of new noise and safety impacts (I-2, I-3, I-4).

5. Provide for periodic update (every five years) of the Airport Land Use Compatibility Plan, subject to the availability of funding, to ensure that airport vicinity planned land uses are in conformance with airport land use compatibility criteria (1-2)

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Circulation Element affecting airports. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Each airport should prepare and periodically update a plan discussing future expansion, improvements, and operations.

2. Review airport master plans for conformance with the Airport Land Use Compatibility Plan, General Plan, and amend as necessary to make them compatible. Amend Zoning Ordinances as necessary to implement approach/departure zoning.

3. Require Conditional Use Permits as necessary for the establishment of new airports, heliports and helipads.

4. Consider the use of aviation easements for discretionary projects to provide for orderly development and as a means of preventing new noise and safety impacts.

CHAPTER IV - HOUSING ELEMENT

The Kern County Housing Element was adopted by the Board of Supervisors on September 10, 2002,* as a separate document. That document is incorporated, in full, by reference.

*Resolution No. 2002-365

CHAPTER V - CONSERVATION ELEMENT

STATUTORY REQUIREMENTS

State of California Planning and Zoning Law requires that a Conservation Element be prepared as part of a general plan as follows:

> Government Code Section 65302(d): The general plan shall include: a conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources.
>
> The Conservation Element of the General Plan addresses Biological Resources, Mineral Resources, Soils and Agriculture, Water Resources and Air Quality within the plan area. Discussion on water distribution and flood control appear within the Public Services and Facilities Element and Safety Element respectively.

CHAPTER V - CONSERVATION ELEMENT

A. BIOLOGICAL RESOURCES

OVERVIEW OF EXISTING CONDITIONS

Originally, the Bakersfield metropolitan area was a region of broad arid plains, often with an extensive cover of saltbush. These plains surrounded the wet center of the valley that was the drainage basin for the Kern River. As late as the 1860s, Colonel Baker's field was the only fenced pasture between Fresno and Los Angeles. By this time, most of the valley's broad plains were owned by resident sheepmen, and grazing was severe, especially in times of drought. What effect this had on the flora of the region is a matter of some conjecture, however. The large herds of tule elk and San Joaquin antelope that roamed the valley before the coming of white men may have had much the same effect on plant cover in dry years as the sheep had.

Irrigation developed rapidly in the Bakersfield area in the late 1880's and large areas were converted to farmlands. Construction of Isabella Dam on the Kern River, together with groundwater pumping in the region, has severely lowered the water table and consequently, little surface water reaches the main valley area to support wetland habitats. However, the Kern River still supports areas of characteristic streambank vegetation. In the period since 1900, the oil and gas industry has developed rapidly in the Bakersfield area. As a result, the plant and animal communities that now exist within the region represent either highly modified (but still recognizable) remnants of native communities or areas that have been almost completely altered from their former state.

Due to the areas low and infrequent rainfall and generally little topographic relief, the predominant vegetation and associated fauna are well adapted to the arid climate. Grasslands and scrublands once covered virtually the entire area. These areas, seemingly poor in plant species diversity and wildlife abundance, are nonetheless the primary base for an intricate food chain which ultimately supports a great diversity of animal life from insects to small birds and mammals, to top predators such as hawks, falcons, harriers, coyote, and fox.

Localized depressions where rainwater collects often harbor a great profusion of unusual and sometimes unique plant life. The presence of remnants of marshes, wetlands, riparian areas and man-created open water habitats further enhances the biological diversity of the area and provides for an abundance of waterfowl, fishes and aquatic organisms in an otherwise desert-like environment.

Although alteration and disruption to the biological environment has occurred as a result of development, the area still retains significant plant and animal communities, some of which are considered sensitive by virtue of their uniqueness or rarity, others by virtue of their recent decline to the point which their existence may be threatened.

BIOLOGICAL SENSITIVITIES

Certain plant and animal species, sometimes whole communities of these, may be considered to be "sensitive", according to guidelines established by the State and Federal Endangered Species Acts. A species is "sensitive" for reason(s) usually related to rarity, limited availability, unusual characteristics, prime conditions, and/or pending threats. In some instances, threats to these species and communities warrant official state or federal rare, threatened, endangered or protected status. For purposes of the General Plan, "sensitive" species are considered rare, threatened or endangered plant or animal species that enjoy protected (i.e. listed) status from the State Department of Fish and Game or the United States Fish and Wildlife Service.

The City of Bakersfield and County of Kern have determined that the appropriate approach to conservation of protected Biological Resources in the Metropolitan Bakersfield area is through the Habitat Conservation Planning process. In 1994, the City and County received permits under Section 10(a)(1)(B) of the United States Endangered Species Act and Section 2081 of the California Endangered Species Act for incidental take of protected species in connection with development projects.

The Metropolitan Bakersfield Habitat Conservation Plan (MBHCP)* and implementing agreements and ordinances provide a method of collecting funds for the acquisition and enhancement of Habitat Land for purposes of creating preserves. Development projects within the Metropolitan area pay mitigation fees which are used to buy habitat lands. These lands are managed by wildlife agencies or entities they approve. Take avoidance measures are also listed in the MBHCP.

The amount of habitat preserved must always be ahead of what is being developed. In the first six years of program operation, 7,900 acres of habitat have been preserved through the MBHCP program. The effectiveness of the MBHCP is monitored through quarterly and annual reports provided to wildlife agencies.

*Footnote: The MBHCP and associated implementing ordinances and agreements are available through the Kern County Planning Department. The plan provides descriptions of species of concern and habitat areas within the Metropolitan Bakersfield General Plan area.

Species of Concern

Species of concern in the Metropolitan Bakersfield area include the following plants and animals:

ANIMALS

State and Federally Listed Endangered or Threatened

San Joaquin kit fox
Blunt-nosed leopard lizard
Tipton kangaroo rat
Giant kangaroo rat

State Listed Threatened Federal Candidate for Listing

San Joaquin (Nelson's) antelope squirrel

State and Federal Candidate for Listing

Short-nosed kangaroo rat*

Federal Candidate for Listing

San Joaquin pocket mouse*

PLANTS

State and Federally Listed Endangered

Bakersfield cactus
Opuntia treleasei
California jewelflower*
Caulanthus californicus

Federally Listed Endangered or Threatened

San Joaquin wooly-threads
Lembertia congdonii
Hoover's wolly-star
Eriastrum hooveri

Kern mallow*
Eremalche kernensis

State Listed Threatened or Endangered

Tulare pseudobahia*
Pseudobahia peirsonii
Striped adobe lily
Fritillaria straita
Bakersfield saltbush*
Atriplex tularensis

Federal Candidate for Listing

Bakersfield saltbush*
Atriplex tularensis
Slough thistle*
Cirsium crassicaule
Recurved larkspur
Delphinium recuvatum

* Studies conducted or reviewed in conjunction with the development of this MBHCP did not confirm the presence of these species within the Metropolitan Bakersfield General Plan area.

Sensitive Natural Communities

The Natural Diversity Data Base reports the occurrence of several sensitive natural communities in the Bakersfield metropolitan area. These communities are considered "rare enough" to merit inclusion in the State's inventory of natural communities (Holland, 1986). For completeness Table V-1 includes a number of communities not reported, but which might reasonably be expected to occur in the planning area.

TABLE V-1

Sensitive Natural Communities Known to Occur or Potentially Occurring in the Bakersfield Area

Relictual Interior Dunes
Valley Sink Scrub
Valley Saltbush Scrub
Sierra-Tehachapi Saltbush Scrub
Upper Sonoran Subshrub Scrub
Valley Needlegrass Grassland
Valley Sacaton Grassland
Wildflower Field
Northern Hardpan Vernal Pool
Northern Claypan Vernal Pool
Alkali Meadow
Alkali Seep
Freshwater Seep
Alkaii Playa
Cismontane Alkali Marsh
Coastal and Valley Freshwater Marsh
Vernal Marsh
Great Valley Cottonwood Riparian Forest
Great Valley Willow Scrub
Great Valley Mesquite Scrub
Buttonbush Scrub

Source: California Department of Fish and Game's Natural Diversity Data Base.

BIOLOGICAL ISSUES

The following biological resource issues have been identified:

- Expanding urban uses result in a loss of habitat area for sensitive plant and animal species.
- Agricultural and oil extraction practices impact the quantity and quality of sensitive plant and animal species and their habitat.

GOALS AND POLICIES

The following presents the goals and policies for biological resources in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Conserve and enhance Bakersfield's biological resources in a manner which facilitates orderly development and reflects the sensitivities and constraints of these resources.

2. To conserve and enhance habitat areas for designated "sensitive" animal and plant species.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Direct development away from "sensitive biological resource" areas, unless effective mitigation measures can be implemented (I-1, I-3, I-4).

2. Preserve areas of riparian vegetation and wildlife habitat within floodways along rivers and streams, in accordance with the Kern River Plan Element and channel maintenance programs designed to maintain flood flow discharge capacity (I-4).

3. Discourage, where appropriate, the use of off-road vehicles to protect designated sensitive biological and natural resources (I-2).

4. Determine the feasibility of enhancing sensitive biological habitat and establishing additional wildlife habitat in the study area with State and/or Federal assistance (I-3).

5. Determine the locations and extent of suitable habitat areas required for the effective conservation management of designated "sensitive" plant and animal species (I-3).

6. Investigate the feasibility of including natural areas selected for the habitat conservation plan as a component of the regional park system (I-3).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Conservation Element affecting biological resources. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. When considering discretionary development proposals, consult available biological resource data covering the area. Determine the potential impacts and necessary mitigation measures for identified biological resources, as required in the California Environmental Quality Act. Regularly consult with responsible resource agencies.

2. Develop ordinances (where appropriate) to protect sensitive biological resources from adverse impacts of off road vehicle use.

3. Preserve habitat and avoid "take" of protected species as required in the Metropolitan Bakersfield Habitat Conservation Plan.

4. Protect sensitive habitat values of the Kern River Corridor through implementation of the Kern River Parkway Plan, Metropolitan Bakersfield Habitat Conservation Plan and Kern River Plan Element.

B. MINERAL RESOURCES

OVERVIEW OF EXISTING CONDITIONS

In conformance with the Surface Mining and Reclamation Act (SMARA), land use decisions that may affect mineral-bearing lands are to be made with the knowledge of these resources. Detailed mineral land classification and designation reports provided by the State Mining and Geology Board are on file with the City of Bakersfield and County of Kern.

The principal mineral resources under development in the project area are oil, natural gas, sand and gravel. The region is a major oil-producing area, with substantial oil and gas fields existing within the planning area boundaries. Oil/gas production provides many jobs and is very important to the local economy.

There are 14 oil fields in the area, as well as the active sand and gravel extraction areas.

Sand and gravel areas are concentrated primarily along the floodplain and alluvial fan of the Kern River, where these clean, coarse deposits have been left by major floods over the past several thousand years. Sand and gravel are an important resource for construction, development, improvements and physical maintenance, from highways and bridges to swimming pools and playgrounds.

The ready and inexpensive availability of sand and gravel contributes to cost-effective construction, low taxes and affordable prices for housing and commodities. The State of California has statutorily required the protection of sand and gravel operations. Because transportation costs are a significant portion of the cost of sand and gravel, the long-term availability of local sources of this resource is an important factor in maintaining the economic attractiveness of the community to residents, business and industry.

There is some potential for fossil and gemstone sites in the foothills of the Sierra Nevada. While not a major economic resource, these may have scientific and natural history value, and would be a positive value to the general image of the local area.

MINERAL RESOURCE ISSUES

The following issues have been identified:

1. Areas of high potential for quarrying of sand and gravel should be identified and protected to ensure the long-term availability of this economically important resource.

2. Valuable mineral and energy resources are lost when incompatible urban encroachment is allowed into areas of current and potential resource extraction.

3. Mineral and energy resource development may result in undesired short and long-term environmental damage to land, water and air quality resources, and create undesirable visual impacts.

GOALS AND POLICIES

The following presents the goals and policies for mineral resources in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Protect areas of significant resource potential for future use.

2. Document areas of current mineral and energy resource extraction, as a basis for land use and conservation policies and programs.

3. Avoid conflicts between the productive use of mineral and energy resource lands and urban growth.

4. Protect land, water, air quality and visual resources from environmental damage resulting from mineral and energy resource development.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Maintain maps and descriptions of potential mineral and energy resources as a basis for policy and program implementation (I-1).

2. Document the location, status, and long-term viability of sand and gravel quarries and petroleum drilling sites for purposes of avoiding near and long-term land use conflicts and provide a basis for compliance monitoring (I-1).

3. Encourage and support the exchange of information on mineral and energy resources between private industry, City of Bakersfield and Kern County (I-1).

4. Land use decisions shall recognize the importance of identified mineral resources and need for conservation of resources identified by the State Mining and Geology Board (I-2).

5 Protect significant mineral and petroleum resource areas, including potential sand and gravel extraction areas (I-2).

6. Continue implementation of the Kern River Channel Maintenance Program for extraction of river sand and gravel (I-2).

7. Promote development of compatible uses adjacent to mineral extraction areas (I-2).

8. Allow development of resource extraction sites subject to the conditional use permit procedure in zones where such uses are not permitted by right and where it can be shown that proposed extraction uses are compatible with surrounding uses (I-2).

9. Encourage preservation of any known deposits of gemstones and fossils (I-1).

10. Implement, as appropriate, the California Environmental Quality Act to minimize land use conflicts and reduce environmental impacts of all proposed resource extraction operations (I-2).

11. Prohibit incompatible development in areas which have a significant potential for harm to public health, safety and welfare due to mineral and petroleum extraction and processing (I-2).

12. Design resource extraction operations subject to discretionary permits to maintain the integrity of areas of "high environmental quality" and unique scenic value (I-2)

13. Require surface mineral resource extraction sites to have plans and procedures for land reclamation; pursuant to the Surface Mining and Reclamation Act of 1975 (Public Resource Code Section 2710 et seq.) and conforming with the requirements of the State Mining and Geology Board Reclamation Regulations, to be implemented upon completion of extraction operations at each site or portion thereof (I-2).

14. Review all discretionary mineral or petroleum development including renewal of existing authorizations, under the policies and procedures of the California Environmental Quality Act (I-4).

15. Require petroleum production sites in urban areas which are subject to discretionary permits, to install peripheral landscaping to help reduce the noise, dust and visual impacts to adjacent sensitive receptors and public ways (I-4).

16. Require all mineral development to be predicated on appropriate reclamation plans that meet the standards of the State Surface Mining and Reclamation Act and the implementing guidelines of the State Mines and Geology Board, and (or) the standards of the State Division of Oil and Gas. Reclamation/restoration of the sites shall be done as each phase of development or extraction is completed (I-4, I-5).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Conservation Element affecting mineral resources. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. The resource maps prepared by the California Division of Mines and Geology, California Division of Oil and Gas, the U.S. Geological Survey, Bakersfield College, California State University Bakersfield, and petroleum and mineral extraction industries within and adjacent to the planning area shall be utilized in the review of discretionary permits. This data shall be maintained on an on-going basis as needed.

2. Designated mineral resource zoning areas, determine acceptable interim land uses within these zones, and plan compatible land uses around mineral extraction areas. Plans should concentrate on minimizing land use conflicts and reducing environmental impacts. Unique gem and fossil localities shall be protected from extraction operations. Planning agencies should coordinate with the California Division of Mines and Geology, the California Division of Oil and Gas, the U.S. Geological Survey, and the U.S. Department of Agriculture Soil Conservation service to ensure that development of mineral and petroleum extraction and reclamation efforts are carried out in accordance with all applicable regulations.

3. Periodically review and update local zoning ordinances that have been amended to accommodate mineral extraction uses outside of mineral resource zones.

4. Contact responsible local, State, and Federal agencies upon receipt of application for mineral and/or petroleum resource exploration, or development, to establish development compliance criteria, health hazards safe guards, and restoration/re-vegetation follow-up procedures.

5. Periodically review and update local agency procedures that notify the aggregate industry in reviewing land use proposals within proximity to areas containing mineral deposits of statewide significance.

   The county will rezone existing quarries, if necessary, to zones consistent with R-MP (Mineral and Petroleum), R-IA (Intensive Agriculture) or industrial designations.

C. SOILS AND AGRICULTURE

OVERVIEW OF EXISTING CONDITIONS

Agriculture in the Bakersfield area has been extensive since the introduction of livestock in the 1860's. Livestock raising on large land grants and some production of grain under dry-farming methods were the chief agricultural pursuits until about 1880. Rapid agricultural development occurred after 1880 due to the development of irrigation, cheap land, favorable crop yields, the advent of two railroads, the development of the petroleum industry and access to markets.

Production figures for primary crops including cotton, alfalfa, milo, wheat and barley, plums, peaches, apricots, citrus, grapes, nuts, truck crops, potatoes and other vegetables show that the Bakersfield area is highly suitable for agricultural cultivation. A review of the California Department of Food and Agriculture Annual Crop Reports indicates a history of high agricultural production for many crops over the years and continuing to the present time. Factors which influence high agricultural productivity today are climate, availability of water, dependable market demand and good soils.

As defined by the California Land Conservation Act (G.C. Sec. 51201), prime agricultural soils include Class I and II soils, storie index 80-100 soils, vineyards and orchards, and soils which yield a minimum of $200 an acre per year. The extent of prime soils in the planning area is substantial, covering a significant portion of the area's 408 square miles.

Land uses within agricultural areas in the planning boundary are controlled by city and county general plans and zoning ordinances. These documents identify the type of land uses permitted in agricultural zones, and call out the development parameters within each agricultural land use category. Lands under Land Conservation Act (LCA) or "Williamson Act" contracts face additional land use restrictions aimed at avoiding the conversion of agricultural lands to other uses. An LCA contract is a mutual agreement between a landowner and the county or city that a given acreage is a viable agricultural unit and should remain as such for the near future. The contract is for a period of ten (10) years beginning the first of January following recordation and is then automatically renewed each year for another year period unless a Notice of Nonrenewal is filed. As an economic incentive, the property receives preferred property tax treatment for both prime and non-prime agricultural lands placed under LCA contract. There is now an option permitted by recent legislation to permit a similar contract which creates a "farmland security zone" for a period of 20 years.

Prime agricultural land is an important and limited resource that requires conservation. It is important that an effective and uniform process be utilized to evaluate the conversion of designated agricultural lands within the plan area to non-agricultural use. Land to be developed for non-agricultural use should be programmed to occur in a gradual outward extension of present non-agricultural areas in order to minimize fragmentation and provide for the efficient provision of urban services. Non-agricultural uses should be encouraged in less desirable soils where agricultural conflicts are minimized. A uniform agricultural land use conversion review process will help to ensure that consistent factors are considered by the decision-making bodies in evaluating agricultural conversion issues.

SOILS AND AGRICULTURE ISSUES

Limitations upon agriculture in the Bakersfield planning area include increased build-up of salts in the soils, and more significantly, development pressures from increasing urban expansion. Subdivision of lands has resulted in substantial prime agricultural acreages being taken out of production. Historic land use patterns of low density sprawl have contributed to the conversion of prime agriculture lands in Bakersfield.

GOALS AND POLICIES

The following presents the goals and policies for soils and agriculture in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide for the planned management, conservation, and wise utilization of agricultural land in the planning area.

2. Promote soil conservation and minimize development of prime agricultural land as defined by the following criteria:

   - capability Class I and/or II irrigated soils
   - 80-100 Storie Index rating
   - gross crop return of $200 or more per acre per year
   - annual carrying capacity of 1 animal unit per acre per year

3. Establish urban development patterns and practices that promote soil conservation and that protect areas of agricultural production of food and fiber crops, and nursery products.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Determine the extent and location of all prime agricultural land within the study area (I-1).

2. Review projects that propose subdividing or urbanizing prime agricultural land to ascertain how continued commercial agricultural production in the project vicinity will be affected (I-2).

3. Protect areas designated for agricultural use, which include Class I and II agricultural soils having surface delivery water systems, from the encroachment of residential and commercial subdivision development activities (I-2).

4. Monitor the amount of prime agricultural land taken out of production for urban uses or added within the plan area (I-3).

5. Encourage coordination between the Soil Conservation Service and local planning agencies (I-7).

6. Continue implementing land grading ordinances that reduce soil erosion/siltation commonly associated with land development (I-4).

7. Land use patterns, grading, and landscaping practices shall be designed to prevent soil erosion while retaining natural watercourses when possible (I-4).

8. Encourage agricultural uses to employ soil conservation measures to prevent erosion (I-4, I-7).

9. Protect prime agricultural lands against unplanned urban development by adopting agricultural zoning, agricultural land use designations, and by encouraging use of the Williamson Act and the Farmland Security Zone Program and policies that provide tax and economic incentives to ensure the long-term retention of agricultural lands (I-5).

10. Encourage landowners to retain their lands in agricultural production (I-6).

11. Encourage property owners to improve or preserve soil conditions (I-7).

12. Prohibit premature removal of ground cover in advance of development and require measures to prevent soil erosion during and immediately after construction (I-4).

13. Minimize the alteration of natural drainage and require development plans to include necessary construction to stabilize runoff and silt deposition through enforcement of grading and flood protection ordinances (I-4, I-7).

14. When considering proposals to convert designated agricultural lands to non-agricultural use, the decision making body of the City and County shall evaluate the following factors to determine the appropriateness of the proposal:

- Soil quality
- Availability of irrigation water
- Proximity to non-agricultural uses
- Proximity to intensive parcelization
- Effect on properties subject to "Williamson Act" land use contracts.
- Ability to be provided with urban services (sewer, water, roads, etc.)
- Ability to affect the application of agricultural chemicals on nearby agricultural properties

- Ability to create a precedent-setting situation that leads to the premature conversion of prime agricultural lands
- Demonstrated project need
- Necessity of buffers such as lower densities, setbacks, etc. (I-8)

15. Buffers such as setbacks, berms, greenbelts, and open space areas shall be established to separate farmland from incompatible urban uses.

16. Future development which involves in-fill of the urban area as opposed to development on the urban fringes shall be encouraged.

17. Sensitive subdivision design of lands near or adjacent to agricultural areas shall be conducted with consideration given to the impacts of non-agricultural uses on agricultural uses.

18. To reduce the potential for conflicts between agricultural and non-agricultural uses, sensitive subdivision design of lands near or adjacent to agricultural areas shall be conducted including provisions for buffer zones (i.e., a road, canal, wall, easement, or setback).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Conservation Element affecting soils and agriculture. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Retain latest Soil Conservation Service Maps to determine the location of capability Class I and/or II irrigated soils, and Storie Index 80-100 soils.

2. Evaluate discretionary projects for their impact on agricultural resources.

3. Document urban expansion and changes in the amount of agricultural land for purposes of determining cumulative impacts to prime agricultural land.

4. Periodically review and update grading ordinances that take into account the potential of soil erosion.

5. Encourage the use of Land Conservation Act contracts in areas designated for agricultural land use.

6. Provide public information on economic incentives available to aid in the preservation of prime agricultural land.

7. Coordinate with the Soil Conservation Service to provide technical assistance on improving or preserving soil conditions.

8. Review General Plan Amendment proposals to urban uses in accordance with factors specified in Agricultural Conservation Policy No. 14.

9. Right-to-farm ordinances shall be implemented.

D. WATER RESOURCES

OVERVIEW OF EXISTING CONDITIONS AND ISSUES

Water supply for the Kern County portion of the southern San Joaquin Valley, in which Bakersfield is located, is derived from four major sources--from groundwater, from the Kern River, from the State Water Project, and from the Federal Central Valley Project

With a population of approximately 400,000, primarily concentrated in urban Bakersfield, the principal use of water in the study area is for irrigated agriculture.

Water usage is expected to change to more urban needs within the planning period. Growth in Metropolitan Bakersfield has been substantial, nearly 80,000 more people live here than in 1990. This growth appears to be continuing at a rate of more than 600 people a month. Clearly the need to provide a stable water supply is important as the Southern San Joaquin Valley is a desert.

Water Supply:

There are two major sources for water locally, surface water and ground water.

Surface water from the Kern River, California State Water Project or Central Valley Project must be treated prior to distribution. There are currently two surface water treatment plants in the metropolitan Bakersfield area.

One facility is owned and operated by the Kern County Water Agency ID4. The plant treats supplies from the Kern River, California Water Project and Central Valley Project. The facility has a nominal peak capacity of 37.5 mgd. Treated water is distributed to customers inside and outside the City of Bakersfield boundaries.

The other facility is the 1.5 mgd water treatment plant owned and operated by the California Water Service Co. The plant was built and operated by Olcese Water District, with California Water Service Co. assuming ownership in 1999. The facility treats only Kern River water.

Each plant uses a combination of chemical addition, settling, filtration and disinfection to produce water of acceptable quality. The plants have produced an average of 24,000 acre-feet of water annually, which accounts for 12% of the City's total water supply.

Supplemental surface water supplies:

The California State Water Project (SWP) is an extensive network of reservoirs, aqueducts, power plants and pump stations. The main function of the SWP is to manage water supply, storing surplus water during wet periods and distributing it to service areas throughout California.

Improvement District No. 4, a subdivision of the Kern County Water Agency is allocated approximately 93,000 acre-feet per year of State Water Project surface water, treating 25,000 acre-feet of such water for municipal and industrial use and wholesaling the

treated water to retail water distribution agencies in the planning area. The remainder of this water is spread for groundwater replenishment.

The Federal Central Valley Project provides irrigation water to the Central Valley through the Friant-Kern Canal System. It also contributes to urban water supply, water quality, flood control, power, recreation, and fish and wildlife enhancement throughout central and northern California. Many of its facilities were developed to be used jointly with the California State Water Project.

Existing SWP facilities can supply approximately 2.4 million acre-feet of water each year. This system could ultimately be expanded to provide 4.2 million acre-feet per year.

The City of Bakersfield has acquired water rights for Kern River flows for approximately 140,000 acre-feet per year. Together with appropriate storage rights in Isabella Reservoir; it currently sub-contracts to five irrigation districts the usage of a major portion of these rights, utilizing the balance for groundwater recharge in a city-owned 2,800 acre recharge area located on the Kern River. The future use of this water for municipal and industrial purposes is a key factor in the long-range adequacy of the urban water supply of the planning area.

Groundwater:

Metropolitan Bakersfield rests above a series of aquifers. These aquifers are part of the larger groundwater basin called the Southern San Joaquin Groundwater Basin.

The primary groundwater aquifer below Metropolitan Bakersfield is made up of unconsolidated sediments. These sediments are bordered by faults or mountain ridges to the east, west, and south. These geologic features serve as effective barriers to groundwater movement to or from these directions.

The goal for water resource management is to reach a condition of "safe yield" for the groundwater basin. "Safe yield" occurs when the amount of water pumped from the basin is less than or equal to recharge into the basin.

Sources of recharge include:

1. Kern River channel
2. runoff
3. canal seepage
4. spreading/banking and
5. wastewater reclamation

OVERDRAFT

In the worst case, if the groundwater overdraft is not controlled, the groundwater table ultimately could be lowered to a depth where it is uneconomic to pump for agricultural use. This would reduce withdrawals to balance recharge, achieving a stable groundwater level. Thus, groundwater would still be available for municipal and industrial use, which can afford to pay the higher pumping costs. In the best case,

additional imported water supplies could offset the overdraft and stabilize the groundwater level at present levels.

Much of the planning area relies upon groundwater pumping for its water supply, including the rapidly developing area north of the Kern River. Groundwater quality problems have been identified in this area, particularly in the upper (unconfined) portions of the groundwater aquifer.

Precipitation Runoff:

Natural recharge is provided by precipitation runoff, which is defined as the amount of melted snow and rainwater measured after evaporation, evapotranspiration, and percolation. Runoff from the Sierra Nevada Mountains feeds the Kern River. Precipitation falling within the City of Bakersfield may not reach the Kern River. The City operates a series of drainage basins or "sumps". Stormwater collected in these basins percolates to the groundwater or evapotranspirates. An average of 24,000 acre-feet of runoff occurs yearly. This contributes about 12% to the City of Bakersfield's total water supply.

River and Canal Seepage:

Canal seepage is defined as the amount of water that percolates into the ground from earthen canals. When added with seepage from the Kern River channel, it contributes more than half the City's water supply at an average of 54%, or about 106,000 acre-feet each year.

Reclaimed Water:

Current and anticipated water shortages in the Southwestern United States have caused recycled wastewater, or reclaimed water, to be viewed as a valuable resource in water supply. Effluent produced from the City's two wastewater treatment plants is used in land application. Land application of reclaimed water to non-edible crops for irrigation is considered one of its most beneficial uses, providing both water and nutrients to enhance plant growth. The City of Bakersfield obtains about 10% of its total water supply from reclaimed water, at an average of 20,000 acre-feet per year.

Spreading and banking:

Percolation of water spread in open basins has been historically used in Kern County as a means of banking groundwater. The City owns and operates a 2800 Acre recharge facility used to replenish water to the groundwater aquifers. It was included with the acquisition of Kern River water rights by the City.

This site is 6 miles long and includes old river channels, overflow lands, and constructed spreading basins. It is located in and along the Kern River Channel approximately 8 miles west of Highway 99. The facility receives surface water supplies during years when surpluses exist. Sources include the Kern River, the Central Valley Project, and the State Water Project.

The groundwater is recharged in this facility by using spreading basins, which look like small lakes surrounded by levees. The city began spreading water into the "2800 Acres" in 1978 through the use of one basin and a number of temporary embankments. Additional basins have since been constructed, increasing the number of acres available for water spreading and recharge. More that 1,000,000 acre-feet of water has been spread within the facility since its inception.

The 2800 Acre recharge facility improves groundwater quality by recharging low salinity Kern River water into the aquifers. This dilutes the more saline irrigation water that percolates underground from adjacent farming operations. The underground reservoir can be pumped in dry years for agricultural and domestic use. In wet years, the reservoir can be built up. This allows water to be used without causing a groundwater overdraft problem.

The facility is a valuable resource to the City in providing a reliable water supply during dry years. An average of 22,000 acre-feet of water is banked annually in the facility, which provides about 11% to the City's total water supply.

Water Contamination

In the northwest portion of the planning area (Rosedale), contaminants include nitrates and dissolved solids which may be indicative of the presence of other water contaminants such as boron, chloride, and possibly Dibromochloropropane (DBCP) and arsenic. The groundwater contamination data for the total study area may be found in various reports on file with the Kern County Water Agency.

The northeast portion of the planning area has severely limited groundwater supplies. In 1999 there was the creation of a public/private partnership (City of Bakersfield and California Water Service) in northeast Bakersfield to construct a 40 million gallon a day water processing facility to serve Kern River water to new and existing urban developments.

Other recent water planning supply projects:

- Completion of a 10 million gallon storage tank that links high quality Kern River water into the drinking system.
- Implemented a Water Management Plan to increase flows in the river channel through the Kern River Parkway to complement Parkway activities and increase groundwater aquifer recharge.
- Enhanced the Reclaimed Water Program with the acquisition of additional farm land for the use of recycled water for irrigation of crops, decreasing the reliance of those lands on the shared groundwater basin.

WATER RESOURCE ISSUES

The following issues have been identified with respect to the area's water resources:

a) The conservation and effective utilization of planning area water resources is complicated by multi-jurisdiction control over such resources.

b) There are portions of the planning area which are water deficient and/or in which there are problems with water quality.

c) Water transport, groundwater recharge needs, recreational usage of water resources, and the preservation and enhancement of water-related natural habitat all compete for the usage of scarce water resources in the planning area.

GOALS AND POLICIES

The following lists the goals and policies for each of the fundamental water resources issues of the planning area. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Conserve and augment the available water resources of the planning area.

2. Assure that adequate groundwater resources remain available to the planning area.

3. Assure that adequate surface water supplies remain available to the planning area.

4. Continue cooperative planning for and implementation of programs and projects which will resolve water resource deficiencies and water quality problems.

5. Achieve a continuing balance between competing demands for water resource usage.

6. Maintain effective cooperative planning programs for water resource conservation and utilization in the planning area by involving all responsible water agencies in the planning process.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Develop and maintain facilities for groundwater recharge in the planning area (I-1, I-2).

2. Minimize the loss of water which could otherwise be utilized for groundwater recharge purposes and benefit planning area groundwater aquifers from diversion to locations outside the area (I-3).

3. Support programs to convey water from other than San Joaquin Valley basin sources to the planning area (I-4).

4. Support programs and policies which assure continuance or augmentation of Kern River surface water supplies (I-4).

5. Work towards resolving the problem of groundwater resource deficiencies in the upland portions of the planning area (I-5, I-6).

6. Protect planning area groundwater resources from further quality degradation (I-7).

7. Provide substitute or supplemental water resources to areas already impacted by groundwater quality degradation by supporting facilities construction for surface water diversions (I-8).

8. Consider each proposal for water resource usage within the context of total planning area needs and priorities--major incremental water transport, groundwater recharge, flood control, recreational needs, riparian habitat preservation and conservation (I-9).

9. Encourage and implement water conservation measures and programs (I-11).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Conservation Element affecting water resources. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Maintain, and utilize to the fullest extent possible, the City of Bakersfield's 2800-Acre spreading facility and all other existing recharge facilities and channels in or serving the planning area groundwater resource, including the Kern River channel through Bakersfield.

2. Support all financially feasible and practical groundwater projects, for the augmentation of groundwater recharge for the south San Joaquin Valley basin by the construction and operation of additional recharge facilities or the importation of additional water for basin recharge.

3. Oppose the diversion or exportation of water resources which would unduly diminish the availability of such resources for planning area groundwater recharge.

4. Provide necessary legislative advocacy and/or funding for the Planning area.

5. Initiate and/or support planning, financing, construction and implementation programs for supplying upland portions of the planning area having groundwater deficiencies with an adequate water supply.

6. Support the provision of adequate wastewater collection systems and treatment reclamation and disposal facilities which will prevent groundwater degradation by on-site wastewater systems.

7. Maintain industrial waste discharge regulation and monitoring programs which protect the planning area groundwater from contaminants.

8. Provide supplemental or replacement water supplies (such as the City's conjunctive use project) to metropolitan area distribution systems which utilize currently or potentially degraded water supplies.

9. Utilize the Kern River Plan Element as a policy guide for consideration of competing water resource needs, including water for municipal, industrial, direct irrigation, groundwater recharge, habitat restoration and multi-purpose recreational uses.

10. Support additional water conservation measures and programs of benefit to the planning area.

E. AIR QUALITY

OVERVIEW OF EXISTING CONDITIONS

Within any time period, the local air basin has a restricted ability to dilute contaminants and maintain air quality at levels which do not adversely affect the population. The topography of the southern half of the Central Valley is a significant factor contributing to the degradation of the air quality in Bakersfield. The elevations of the mountain ranges which surround the valley on three sides are high enough to impede the dispersion of pollutants from the basin and emphasize the effect of inversion layers. These layers can vary in height from 2,400 feet down to 1,500 feet. Days on which there are low inversion layers, low mixing heights, and low wind speeds, pollutant concentrations increase, creating very poor air quality. During the winter months there are higher concentrations of carbon monoxide, nitrogen oxide, sulfur oxide, and particulates, with tule fog magnifying these poor air quality conditions. During the summer and fall months there is a greater build-up of ozone, which persists due to stagnation of this regional air mass.

Air quality standards are set by both the State and Federal governments. The San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) has the responsibility to monitor and enforce air quality standards in Kern County. The Environmental Protection Agency has designated the San Joaquin Valley portion of the Kern County air basin as an area which has not attained National Ambient Air Quality standards for ozone, and particulates. On-road mobile sources, including cars, trucks and motorcycles, are the most significant contributors to carbon monoxide, which is the gas emitted in the greatest amount from motor vehicle exhaust. The SJVUAPCD has no jurisdiction over mobile sources.

The Land Use and Circulation Elements of the Plan provide concepts and policies which assist in reducing the amount of pollution emission from mobile sources. These policies are not technological in nature; they are related to land use and transportation planning, regulation and management. Their effect is to reduce vehicle trips, vehicle miles traveled, and pollutant emissions per vehicle mile (cold-start trips emit more pollutants than hot-start trips) and thereby reduce the emission of automobile related air pollutants on both a regional and localized basis. The principal automotive pollutants of concern are carbon monoxide (CO), reactive hydrocarbons (HC) and oxides of nitrogen (NOx). The latter two combine in the presence of sunlight and high temperature to form photochemical ozone (smog). Particulates entrained from roads by the wheels of motor vehicles are also of concern.

Examples of policies in the plan which have a positive influence on the above factors include:

- **Land Use Policies:**

  The centers concept
  Intensification of land use within the urban area
  Allowance for mixed use areas

Encouragement of pedestrian sensitive areas
Encouragement of planned developments

- **Circulation Policies:**

  Provision of landscaping along transportation corridors
  Maintenance of "level of service C"
  Increase consultation with public transit authority
  Progressively timed traffic signalization
  Consideration of transit issues in street design
  Planning for bus turnouts along arterials and collectors
  Promotion of multi-modal transit terminal

Planning for compliance with the federal/state ambient air quality standards has been assigned to the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD), who, with the assistance of the Kern Council of Governments (Kern COG), prepared the Air Quality Attainment Plan (AQAP) for ozone and carbon monoxide and PM10 Nonattainment Area Plan (NAP) for the San Joaquin Valley Air Basin. The AQAP/NAP focuses on air pollutants for which there are Federal standards. Among the actions recommended in the AQAP/NAP are policies and programs which localities can undertake to help improve air quality. Local jurisdictions are encouraged to incorporate these policies in their general plans, and to adopt supplementary policies as appropriate.

AIR QUALITY ISSUES

- Attainment of state and federal air quality standards.

- Balancing economic growth with clean air.

GOALS AND POLICIES

The following presents the goals and policies for air quality in the planning area. Implementing programs are contained in the following subsection. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Promote air quality that is compatible with health, well being, and enjoyment of life by controlling point sources and minimizing vehicular trips to reduce air pollutants.

2. Continue working toward attainment of Federal, State and Local standards as enforced by the San Joaquin Valley Unified Air Pollution Control District.

3. Reduce the amount of vehicular emissions in the planning area.

4. Reduce air pollution associated with agricultural activities.

POLICIES

1. Comply with and promote San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) control measures regarding Reactive Organic Gases (ROG). Such measures are focused on: (a) steam driven well vents, (b) Pseudo-cyclic wells, (c) natural gas processing plant fugitives, (d) heavy oil test stations, (e) light oil production fugitives, (f) refinery pumps and compressors, and (g) vehicle inspection and maintenance (I-1).

2. Encourage land uses and land use practices which do not contribute significantly to air quality degradation (I-1).

3. Require dust abatement measures during significant grading and construction operations (I-1).

4. Consider air pollution impacts when evaluating discretionary permits for land use proposals. Considerations should include (I-1):

   a) Alternative access routes to reduce traffic congestion.

   b) Development phasing to match road capacities.

   c) Buffers including increase vegetation to increase emission dispersion and reduce impacts of gaseous or particulate matter on sensitive uses.

5. Consider the location of sensitive receptors such as schools, hospitals, and housing developments when locating industrial uses to minimize the impact of industrial sources of air pollution (I-1).

6. Participate in alternative fuel programs (I-2).

7. Participate in regional air quality studies and comprehensive programs for air pollution reduction (I-3).

8. Promote and assist in the development and implementation of the San Joaquin Valleywide Air Quality Study (I-3).

9. Promote public education regarding air quality issues and alternative transportation (I-4).

10. Implement the Transportation System Management Program (July 1984) for Metropolitan Bakersfield to improve traffic flow, reduce vehicle trips, and increase street capacity (I-1).

11. Improve the capacity of the existing road system through improved signalization, more right turn lanes and traffic control systems (I-1).

12. Encourage the use of mass transit, carpooling and other transportation options to reduce vehicle miles traveled (I-4).

13. Consider establishing priority parking areas for carpoolers in projects with relatively large numbers of employees to reduce vehicle miles traveled and improve air quality (I-1).

14. Establish park and ride facilities to encourage carpooling and the use of mass transit (I-1).

15. Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects (I-1).

16. Cooperate with Golden Empire Transit and Kern Regional Transit to provide a comprehensive mass transit system for Bakersfield; require large-scale new development to provide related improvements, such as bus stop shelters and turnouts (I-1).

17. Continue to participate with the vehicle smog-check and maintenance programs (I-1).

18. Encourage walking for short distance trips through the creation of pedestrian friendly sidewalks and street crossings (I-1).

19. Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services to minimize vehicular travel (I-1).

20. Provide the opportunity for the development of residential units in concert with commercial uses (I-1).

21. Disperse urban service centers (libraries, post offices, social services, etc.)to minimize vehicle trips and trip miles traveled and concomitant air pollutants (I-1).

22. Require the provision of secure, convenient bike storage racks at shopping centers, office buildings, and other places of employment in the Bakersfield Metropolitan area (I-1).

23. Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work (I-1).

24. Encourage employers to implement programs for staggered work hours, compressed work weeks, or other measures which relieve vehicle congestion during commute periods and reduce total work trips (I-1).

25. Require design of parking structures and ramps to provide adequate off-street storage for entering vehicles to minimize on-street congestion and avoid internal back-up and idling of vehicles (I-1).

26 Consider restriction or elimination of on-street parking for the purpose of providing increased road or intersection capacity during peak traffic hours (I-1).

27. Local governments should work with local transit authorities to increase the attractiveness of passenger staging areas through the provision of waiting shelters, landscaping and drinking fountains (I-1).

28. Encourage the use of "teleconferencing" and other state-of-the-art technology as a means of reducing daily business related traffic (I-4).

29. Encourage the use of alternative fuel and low or zero emission vehicles (I-5, I-6)

30. Encourage local officials to advocate safe incentives for biomass plants to divert agricultural waste and reduce agricultural burns (I-1).

31. Encourage agricultural burn alternatives (I-1).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Conservation Element affecting air quality. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1 Amend as needed the City and County Zoning Ordinances to:

a) Incorporate the provisions of the Air Quality Management Plan.

b) Incorporate measures identified under the Transportation System Management Plan for Metropolitan Bakersfield.

c) Limit intrusions into the pedestrian right-of-way.

d) Require air quality design considerations indicated in policies 22 and 25.

2. Continue implementation and monitoring of the city's pilot program with regard to a methanol powered vehicle fleet and investigate other potential cleaner burning energy sources.

3. Continue support of comprehensive air pollution control investigation and implementation strategies.

4. The city and county should work with the appropriate air quality and transportation agencies toward education of the general public with regard to air quality issues and alternate modes of transportation.

5. Expand the use of alternative fuel and low or zero emission vehicles in the metropolitan area for public and private use to achieve 10% usage.

6. Create the private and public infrastructure necessary to support alternative fuel vehicles.

7. Create buffer zone, where necessary between urban and agricultural activities.

8. Leverage Project Clean Air by increasing membership, community support and funding.

CHAPTER VI - OPEN SPACE ELEMENT

STATUTORY REQUIREMENTS

State planning law requires jurisdictions to prepare a plan for the long range conservation and preservation of open space (Government Code Section 65302(e)). As defined by the State, open space should include lands for:

(a) the preservation of natural resources;
(b) the managed production of resources;
(c) outdoor recreation; and
(d) public health and safety (Government Code Section 65560(b)).

Under this broad definition, open space is encompassed in several General Plan elements including Land Use, Conservation, Parks and Safety. To minimize repetition this Open Space Element will deal with those open space amenities not covered in these other elements.

A. OPEN SPACE ELEMENT

OVERVIEW OF EXISTING CONDITIONS AND ISSUES

There are approximately 100,237 acres of agriculture/open space in the planning area (see graph on page II-1 of the Land Use Element, representing over 57.76 percent of the total land use acreage. The majority of this open space is devoted to agricultural uses, consisting of both row and tree crops, and to large tracts of land devoted to oil explorations. Non-farm and non-oil open space occurs predominately in the floodplain areas along the Kern River, with large floodplain areas occurring west of Allen Road; in the steeper hillside areas east of Comanche Drive; and along Alfred Harrell Highway.

The Kern River Plan Element establishes policies aimed at protecting what is thought of as the area's greatest natural resource, the Kern River. Due to both the size and extent of the Kern River within the study area, the river offers the highest potential for the provision of regional open space opportunities.

OPEN SPACE ISSUES

The planning area lacks a cohesive system of open space amenities, with many of the area's major amenities including the Kern River, bluffs and foothills being under-utilized as open space resources.

The aesthetic value of open space areas and the impact of development on public viewsheds should be considered.

Cut-and-fill grading techniques employed to accommodate development alter natural topography and ridgelines.

CHAPTER VI – OPEN SPACE ELEMENT

GOALS AND POLICIES

The following presents the goals and policies for open space in the planning area. Implementing programs are contained in the following subsection. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Conserve and enhance the unique aspects of open space within the planning area.

2. Create an integrated system of open space amenities in the planning area.

3. Locate and site development to minimize the disruption of open space areas.

4. Acquire new lands for open space.

5. Create 20 major tree-covered corridors that connect to and include the Kern River Parkway, safe bikepaths and GET bus routes.

6. Create a greenbelt corridor along the Kern River with increased recreational opportunities.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Promote the establishment, maintenance and protection of the planning area's open space resources, including the following (I-1):

   a) Conservation of natural resources (refer to Chapter II-Land Use, Chapter V-Conservation, and Chapter XII Kern River Plan Element).

      - Kern River corridor
      - Management of hillsides

   b) Managed production of resources

      - Agriculture (refer to Chapter V-Conservation/Soils and Agriculture)

- Oil production (refer to Chapter V-Conservation/Mineral Resources)

c) Outdoor recreation

- Parks (refer to Chapter XI-Parks)
- Kern River corridor (refer to Chapter II-Land Use, Chapter V-Conservation, and Chapter XII-Kern River Plan Element)

d) Public health and safety

- Hazard avoidance (refer to Chapter VIII-Safety)

2. Development of ridge lines within the planning area should consider natural topographic constraints (I-2).

3. Hillside development should exhibit sensitivity and be complementary to the natural topography (I-1).

4. Require the use of grading techniques in hillside areas that preserve the form of natural topography and ridge lines (I-1).

5. Development location and siting should be sensitive to its relationship to the Kern River (I-2).

6. Development on or adjacent to bluff areas should complement the natural topographic integrity of such areas (I-1).

7. Consider the use of groundwater recharge lands for recreation, habitat and alternate resource uses (I-3).

8. Consider reuse of abandoned landfill areas for recreational and open space purposes where it can be shown that the landfill does not present a health hazard (I-4).

9. Encourage depleted resource extraction sites to be restored as alternative open space or developed with uses compatible with those adjacent (I-4).

10. Create a master plan for greater Bakersfield for greenbelts, water elements and landscape corridors. (I-5)

11. Create an Ad Hoc Tree Advisory Committee to develop a tree ordinance for greater Bakersfield that ensures a sustainable urban forest. (I-5)

12. The City of Bakersfield will pursue preservation of open space within the Northeast Bakersfield Open Space Area (NBOSA) (bubble map, on file at the City of Bakersfield Planning Department). (I-6)

13. The intended usage of the NBOSA includes open space, parks, trails and other habitat and recreational uses. (I-6, I-7)

14. Develop a land use and trails plan (Specific Plan) for the NBOSA. (I-7)

15. Encourage the establishment of public neighborhood parks in or adjacent to the NBOSA as subdivisions are approved. (I-7)

16. Establish linkages between NBOSA and adopted trail systems. (I-7 (I-8)

17. Support the establishment of an area for off road vehicle use. Potential areas include, but are not limited to, property adjacent to the Rena land fill, an area adjacent to Round Mountain Road, and areas adjacent to Breckenridge Road, east of Comanche Road. (I-10)

18. Establish open space/trail linkages from the NBOSA to public and quasi public facilities such as CALM, Hart Park, soccer park, Lake Ming and the Kern River Corridor. (I-7)

19. In the review of site specific development plans, encourage access from proposed development adjacent to the NBOSA to provide public access to open space and trails. (I-8)

20. Where possible, and with the cooperation of wildlife agencies, utilize Metropolitan Bakersfield Habitat Conservation Plan (MBHCP) resources to expand/create habitat preserves with the NBOSA. (I-9)

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Open Space Element. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Implement the programs identified in the Land Use, Parks, Soils and Geology, and Hazards sections of the General Plan.

2. Hillside Management Ordinance for the City of Bakersfield regulates development in areas of excessive slope in northeast Bakersfield. Kern County's existing ordinance will be augmented as necessary.

3. Implement Kern River Plan Element policies regarding development sensitivity to the river resource.

4. Agencies involved in groundwater recharge projects should coordinate as appropriate to achieve multiple use of recharge areas where feasible.

5. Where appropriate, rezone abandoned landfill areas and resource extraction sites to allow open space or development uses complementary of and compatible with surrounding uses.

6. Develop and adopt plans and ordinances as appropriate to greenbelts, water elements, landscape corridors and urban forest policies.

7. With cooperation of private landowners, utilize all resources and programs to expand/create an open space amenity within the NBOSA area. Resources include but are not limited to: Metropolitan Bakersfield Habitat Conservation Plan (MBHCP) resources; public and private grants; land exchanges with private and public landowners; land in-lieu program; development right transfers; conservation easements; dedication of open space within NBOSA for impact fee reduction; and community fund-raising.

8. Pursue the:

   a. Adoption of a land use plan (Specific Plan) depicting various recreational, open space parks, trails, parking lots, etc.

   b. Adoption of trail system for the NBOSA which links project area together.

   c. Creation of neighborhood parks adjacent to the NBOSA.

9. Review development plans for the purpose of providing access or allowing linkages to the NBOSA.

10. Work with Federal and State wildlife agencies, through the MBHCP Trust Group, to enlarge existing preserve areas and provide for limited trail use and interpretive programs within preserve areas so long as the integrity of the preserve can be protected.

11. Work with ORV users, Kern County, State and Federal agencies to assist in identifying financial resources and property which could be made available for ORV use.

CHAPTER VII - NOISE ELEMENT

STATUTORY REQUIREMENTS

The contents of a Noise Element have been determined by the requirements of Section 65302(f) of the California Government Code and by "Guidelines for the Preparation and Content of Noise Elements of the General Plan" published by the California Office of Noise Control (ONC) in 1976. The Government Code and ONC Guidelines require that certain major noise sources and areas containing noise sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected levels of activity within the community.

Pursuant to the Government Code and ONC Guidelines, the following major noise sources were considered in the preparation of the Noise Element:

- Highways and freeways
- Primary arterials and major local streets
- Railroad operations
- Aircraft and airport operations
- Local industrial facilities
- Other stationary sources

Due to the size and scale of the noise contour maps (1"=400'), they are not reproduced in this document, but can be referenced in the City of Bakersfield Planning Department or the Kern County Department of Planning and Development Services.

Also considered in the preparation of the Noise Element are areas containing the following noise sensitive land uses:

- Schools
- Hospitals
- Rest homes
- Long-term medical or mental care facilities
- Other uses deemed noise sensitive by the local jurisdiction

The purpose of this Noise Element is to provide a means for protecting local citizens from the harmful effects of excessive exposure to noise.

OVERVIEW OF EXISTING CONDITIONS

MAJOR NOISE SOURCES

Based on discussions with government officials and the results of field studies by Brown-Buntin Associates (BBA), it was determined that there are four major sources of community noise within the study area. These sources are traffic on state highways and major local streets, railroad operations, airport operations and local industrial activities. Specific noise sources selected for study are listed.

STATE HIGHWAYS

- State Route 58
- State Route 99
- State Route 119
- State Route 178
- State Route 184
- State Route 204

MAJOR LOCAL STREETS
RAILROAD OPERATIONS

- Burlington Northern Santa Fe Railway (B.N.S.F.)
-Southern Pacific Transportation Company (SPTCo.)

AIRPORT OPERATIONS

- Kern County Airport (Meadows Field)
- Bakersfield Airpark

INDUSTRIAL FACILITIES AND OTHER MAJOR STATIONARY NOISE SOURCES

- Lake Ming Boat Races
- Mesa Marin Raceway
- Burlington Northern Santa Fe Classification Yard
- Southern Pacific Classification Yard
- Kern Rock Company
- Calcrete
- Joey Recycling Center
- Jack Frost Ice Company

A combination of noise monitoring and analytical noise modeling techniques were used to develop generalized noise exposure contours around the major noise sources identified above for existing (1985 or 1986) and future (2010) conditions.

The analytical methods used in this report closely follow recommendations made by ONC, and were supplemented where appropriate by field-measured noise level data to account for local conditions. It should be noted that the noise exposure contours presented in this report are based upon annual average or in some cases maximum noise level conditions, and are not intended to be site-specific where local topography, vegetation or intervening structures may significantly affect noise exposure at a particular location.

1. Highways and Major Local Streets

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to develop Community Noise Equivalent Level (CNEL) contours for state highways and major local streets within the study area.

The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within plus or minus 1.5 dB. To predict CNEL values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic volumes and truck percentages for existing (1985-86) and future (2010) conditions on the state highways in the study area were obtained from Caltrans. Future projections of annual average daily traffic volumes on state highways are based upon a yearly growth factor of 3.6 percent which is the five-year average for 1979-1984 as published by Caltrans. Traffic volumes for existing and future conditions on major local streets were obtained from the City of Bakersfield and County of Kern Roads Departments.

Using existing traffic data and the FHWA methodology, traffic noise levels as defined by CNEL were calculated for existing (1985-86) and projected future (2010) traffic volumes on the state highways and the major local streets identified for study.

The approximate locations of the 60 and 65 dB CNEL contours for these roadways have been plotted on 400 scale maps. Only those contours which are located at distances of greater than 75 feet from the center of the roadway are shown on the 400 scale maps. It should be noted that since the methodology used to develop generalized contours did not take into consideration shielding which may be caused by buildings or topography in some areas, the distances on the 400 scale maps should be considered as worst-case estimates of traffic noise exposure in the community.

2. Railroad Operations

Two rail companies provide service in the Bakersfield area. Noise measurements of Burlington Northern Santa Fe and Southern Pacific Transportation Co. trains were conducted in Bakersfield in May 1986 to document noise levels generated by individual rail movements in the community. Noise level measurements of branch line operations were conducted.

Noise exposure levels as defined by CNEL for railroad operations in the study area were calculated using the Simplified Procedure for Assessment of Noise Emitted by On-Line Railroad Operations, prepared by Wyle Laboratories (Report No. 59197-1) in March 1974 and railroad operational data. The Wyle Methodology is an analytical method used to predict railway noise which is based upon reference energy emission levels for diesel locomotives and freight/passenger cars with consideration given to numbers of locomotives and cars, speed, track conditions, and distance to the receiver. The approximate locations of the 65 and 60 CNEL contours for 1986 conditions are shown on the 400 scale maps.

As in the case of traffic noise contours, railroad noise contours should be considered as estimates of worst-case exposure since no adjustments have been made for shielding provided by intervening topography or buildings. CNEL contours for the McKittrick and Oildale branch lines have not been illustrated on the 400 scale maps.

Although noise levels from individual train movements on these branch lines produce short term noise impacts when they occur, such impacts do not occur frequently enough to produce a significant noise exposure as defined by CNEL.

TABLE VII-1

Distance (Feet) from Center of Track to CNEL Contour Values for Existing (1986) Railroad Operations

Railroad	Segment	CNEL 65 dB	CNEL 60 dB
Southern Pacific Transportation Co.	SPTCo. Mainline Yard to the northwest (within 1,000' of grade crossings)	342 (631)	730 (1,360)
Southern Pacific Transportation Co. and Burlington Northern Santa Fe	SPTCo. Mainline Combined Operations Yard to Edison (within 1,000' of grade crossings)	464 (858)	1,000 (1,848)
Burlington Northern Santa Fe	AT&SF Mainline Yard to the northwest (within 1,000' of grade crossings)	342 (631)	730 (1,360)
Burlington Northern Santa Fe	SPTCo. Arvin Branchline (within 1,000' of grade crossings)	369 (681)	794 (1,468)
Southern Pacific Transportation Co.	SPTCo. McKittrick Branchline (within 1,000' of grade crossings)	25 (46)	54 (100)
Burlington Northern	SPTCo. Oildale Branchline (within 1,000' of grade crossings)	25 (46)	54 (100)

Source: Brown-Buntin Associates.

3. Airport Operations

Two airports are located within the planning area. Meadows Field is owned and operated by Kern County. Bakersfield Municipal Airpark is owned and operated by the City of Bakersfield.

In 1996, the City and County adopted the Airport Land Use Compatibility Plan (ALUCP). This document was prepared using the materials entitled "Kern County Airport Land Use Compatibility Plan" dated June 1994. It includes material, including noise contours, prepared by Hodges and Shutt, an aviation consulting firm under contract to the Kern Council of Governments (Kern COG).

The noise contours contained in the ALUCP are calculated based on aircraft activity forecasts which are set forth in an airport master plan or which are considered by the local agency to be plausible.

The locations of CNEL contours are one of the factors used to define compatibility zone boundaries and criteria. It is intended that noise compatibility criteria be applied at the general plan level. Because of the inherent variability of flight paths and other factors that influence noise emissions, the depicted contour boundaries are not absolute determinants of the compatibility of a given land use.

4. Industrial Facilities and Other Stationary Noise Sources

a. Calcrete

The Calcrete plant is located near the intersection of Pacheco and Wible Roads. The most significant sources of noise associated with this operation are vibrators located in the sand and cement bins to keep materials moving through the system.

Maximum noise levels during the operation of the cement bin vibrator were 60-65 dB(A) at approximately 500 feet northwest of the plant. Based upon the above-described noise level data and operational data, a generalized 60 dB CNEL contour was prepared depicting a worst case condition with a 12-hour work shift beginning at 7 a.m.

b. Lake Ming Boat Races

Lake Ming, located about nine miles northeast of central Bakersfield, is operated by the Kern County Parks and Recreation Department as a recreational lake for both power and sail boats. Several times each year, boat racing consisting of circle boat or drag boat racing, is permitted on the lake. On April 19, 1986, Brown-Buntin Associates monitored noise levels from drag racing events at four different locations around the lake in order to determine maximum noise levels (L_{max}).

The noise levels recorded by Brown-Buntin Associates and Kern County indicate that drag boat racing activity on Lake Ming can conflict with noise-sensitive land uses in the area. A generalized 75 dB(A) maximum noise level contour for boat racing activities at Lake Ming is shown on the 400 scale 1986 and 2010 noise exposure contour maps. 75 dB(A) represents the maximum exterior daytime noise level currently allowed by the City of Bakersfield Noise Element for residential properties. CNEL contours for boat racing on Lake Ming were not prepared since such activities occur only a few times per year.

c. Mesa Marin Raceway

Mesa Marin Raceway is located near the intersection of State Routes 178 and 184 about 8 miles east of central Bakersfield. Classes of modified stock cars racing at the track include Street Stocks, Super Modified Stocks, and Open Competition Stocks

Noise level measurements near Mesa Marin Raceway were conducted by Brown-Buntin Associates during the evening of April19, 1986. Typical median (L_{50}) noise levels recorded ranged from 61 to 70 dB(A) with typical maximum levels reaching 87 dB(A). At El Dorado Estates, about 2 miles from Mesa Marin maximum noise levels of 48-52 dB(A) were recorded. At a site 0.9 miles west of the raceway, maximum noise levels ranged from 58-62 dB(A).

In the parking lot of the raceway, maximum noise levels of 60-67 dB(A) were recorded. It should be noted that at this location the earthen berm which borders the southern portion of the oval track considerably reduces noise levels. Based upon the above-described topographical factors and noise level data, the worst case 70 and 75 dB(A) maximum noise level contours were plotted on 400 scale maps. CNEL contours were not prepared for this facility due to the relatively infrequent use of the track.

d. Kern Rock Company

The Kern Rock Company sand and gravel operation is located approximately 1,500 feet west of the intersection of Wible and Pacheco Roads. Noise generating activities include truck traffic (hauling sand and gravel to the stockpile area, picking up loads of bulk cement and hauling concrete ready-mix), and the operation of the plant itself. Based upon noise levels and plant operational data, the location of the 60 dB CNEL contour was estimated to be 300 feet from the plant.

e. Burlington Northern Santa Fe: Railroad Classification Yard

The Burlington Northern Santa Fe railroad yard is located east of Oak Street between 16th Street and California Avenue. Generalized CNEL contours for this facility were prepared using operational data obtained from the railroad for existing conditions. These are shown on the 400 scale noise exposure maps for 1986 and 2010. Operational data obtained from the railroad were intended to be representative of annual average conditions, although it was recognized that activity varies considerably with seasonal demands and economic conditions

f. Southern Pacific Transportation Company: Railroad Classification Yard

The SPTCo. railroad classification yard is located east of Beale Avenue between Sumner and Kentucky Streets in Bakersfield. The Wyle methodology was used to develop generalized CNEL contours around the facility for existing levels of yard operations, which are shown on the large scale map.

Operational data were obtained from the railroad to represent annual average conditions, although it was recognized that activity varies considerably throughout the year due to seasonal demands and economic conditions.

g. Jack Frost Ice Co.

The Jack Frost Ice Co. facility is located at the southwest intersection of Stine Road and District Boulevard. Noise sources associated with the plant include two compressors located on the roof of the building and truck traffic entering and leaving the loading dock area.

Noise measurements with both compressors operating at a distance of 140 feet from the approximate center of the plant resulted in a noise level of 64.1 dB(A) L_{eq}. The approximate location of the 60 dB CNEL contour based upon the above-described noise level and operational data are shown on the large scale map.

h. Joey Recycling Center

This facility is located on the south side of White Lane between Hughes Lane and South H Street. Noise generating activities consist of the unloading and crushing of aluminum cans using a hydraulic press. Noise measurements 400 feet from the facility were conducted on the morning of May 14, 1986, while the crusher was in operation. The measured Leq at this location was 64.7 dB(A). Based upon the above-described noise level and operational data, a generalized 60 dB CNEL contour was prepared and is shown on the 400 scale maps.

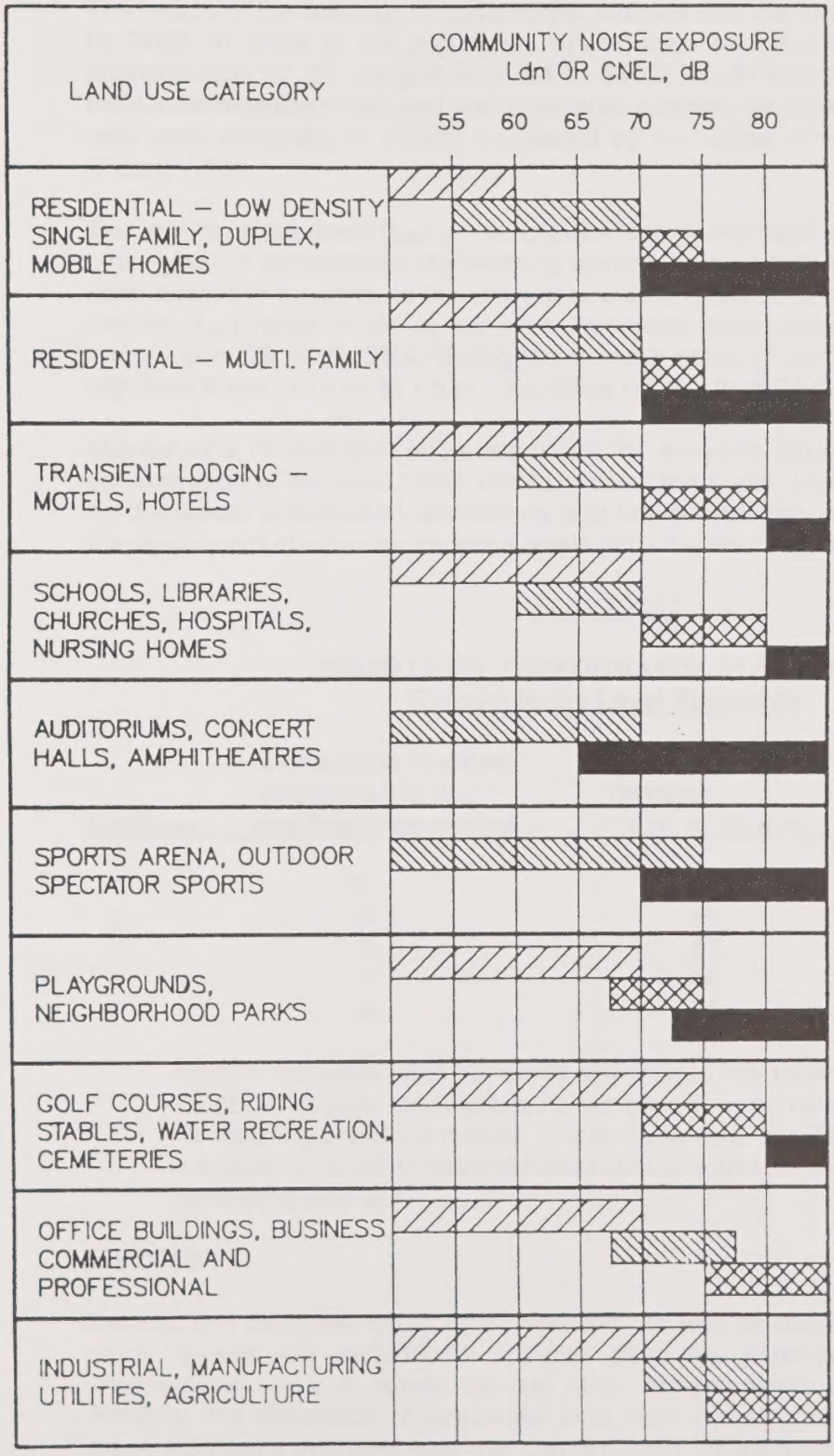
NOISE SENSITIVE AREAS

The following noise sensitive land uses have been identified in the study area:

- Residential areas
- Schools
- Convalescent and acute care hospitals
- Parks and recreational areas

As suggested by the Office of Noise Control Guidelines, a community noise survey was conducted in March 1986 to document existing noise exposure in areas of the community containing noise sensitive land uses. The purpose of the community noise survey was to define the existing noise environment in areas of the community outside the Ldn 60 dB contour where noise sensitive land uses are located; to provide a numerical check of noise levels determined by mathematical modeling techniques and to serve as a basis for establishing quantitative land use compatibility criteria and noise performance standards consistent with existing noise levels in the community. Since the geographic scope of the study area is over 400 square miles, including both developed and undeveloped lands, noise measurements were conducted only in urbanized areas.

LAND USE COMPATABLILTY FOR COMMUNITY NOISE ENVIRONMENTS



INTERPRETATION

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

(Source: Office of Noise Control, California Department of Health)

FIGURE VII–1

The results of the community noise survey indicate that the mean noise level as defined by CNEL in areas of the community where noise sensitive land uses are located is approximately 57 dB, ranging from 44 to 64 dB. Such levels are typical of suburban residential neighborhoods and are considered normally acceptable for all noise sensitive land uses according to criteria suggested by the Office of Noise Control Guidelines (Figure VII-1).

The median noise level (L_{50}) is the criterion commonly used in noise ordinances or in other types of performance standards to assess the acceptability of noise sensitive land uses located in proximity to commercial or industrial noise sources. During the survey, median (L_{50}) noise levels at the sites monitored continuously for 24 hours or more ranged from 38 to 49 dB(A) during the daytime hours (7 a.m. to 10 p.m.). During the nighttime hours (10 p.m. to 7 a.m.), L_{50} levels ranged from 24 to 48 dB(A).

Maintenance of desirable noise exposures for sensitive areas are addressed through consideration of sporadic noise normally associated with stationary land uses. Table VII-2 provides a method of determining land use compatibility for sensitive uses through the assignment of noise exceedence levels and time restrictions.

TABLE VII-2

NOISE LEVEL PERFORMANCE STANDARDS*
Exterior Noise Level Standards

Category	Cumulative Number of minutes in any one-hour time period	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

* Each of the noise level standards specified in this table shall be reduced by five (5) dB(A) for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards should be applied at a residential or other noise-sensitive land use and not on the property of a noise-generating land use.

SUMMARY

Existing and projected future traffic volumes, as well as noise sources from industry, trains, aircraft and recreational activities have the potential to increase noise to unacceptable levels in residential and other noise-sensitive areas of the plan area. Similarly, the expansion of residential uses near industry and airports may displace these activities if improper land use planning with regard to noise occurs. A series of policies and implementation measures have been prepared to address these issues.

NOISE ISSUES

The following issues have been identified regarding noise:

- Noise exposure from conflicting land uses and transportation corridors.
- Maintenance of acceptable noise levels.

GOALS AND POLICIES

The following presents the goals and policies for noise in the planning area. Implementing programs are contained in the following subsection.

At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.

2. Protect the citizens of the planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in Table VII-2. The noise exposure contour maps on file at the City of Bakersfield and County of Kern indicate areas where existing and projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified (I-1).

2. Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to reduce noise to acceptable levels. (I-2, I-3, I-6, I-7).

3. Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.

Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-2 in areas containing residential or other noise-sensitive land uses (I-3, I-6, I-7).

4. Require noise level criteria applied to land uses other than residential or other n noise-sensitive uses to be consistent with the recommendations of the California Office of Noise Control (see Figure VII-1 (I-4)).

5. Encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise (I-7).

6. Encourage interjurisdictional coordination and cooperation with regard to noise impact issues (I-8).

7. Establish threshold standards for the determination of the existence of cumulative noise impacts that are significant, and will therefore require mitigation to achieve acceptable noise standards that do not exceed the standards contained in this element (I-9)

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Noise Element. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Maintain noise contour maps which enable planning agencies, developers and the public to identify noise impacted areas on the land use map.

2. Review discretionary development plans, programs and proposals, including those initiated by both the public and private sectors, to ascertain and ensure their conformance to the policy framework outlined in this element.

3. Require development of proposed residential or other noise sensitive land uses in noise-impacted area to comply with the noise standards of 65 dB CNEL or less in outdoor activity areas and 45 dB CNEL or less within interior living spaces and the performance standards within Table VII-2.

4. Require proposed commercial and industrial uses or operations to be designed or arranged so that they will not subject residential or other noise sensitive land uses to exterior noise levels in excess of 65 dB CNEL and interior noise levels in excess of 45 dB CNEL and so that impacts on noise sensitive uses shall not exceed the performance standards in Table VII-2.

At time of any discretionary approval, such as a request for zone change or subdivision, the developer may be required to submit an acoustical report indicating the means by which the developer proposes to comply with the noise standards. The acoustical report shall:

a) Be the responsibility of the applicant.

b) Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.

c) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.

d) Include estimated noise levels in terms of CNEL and the standards of Table VII-2 (if applicable) for existing and projected future (10-20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.

e) Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.

f) Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the project must be provided.

5. Develop implementation procedures to ensure that requirements imposed pursuant to the findings of an acoustical analysis are conducted as part of the project permitting process.

6. Enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code concerning the construction of new multiple-occupancy dwellings such as hotels, apartments, and condominiums.

7. Investigate development and adoption of a community noise control ordinance to address noise complaints, and to provide local industry with performance standards for future development and equipment modifications. The noise exposure information developed during the community noise survey should be used as a guide in preparation of the ordinance. The ordinance should be consistent with the "Model Community Noise Control Ordinance" prepared by the California Office of Noise Control in 1977 with modifications made to reflect local concerns

and conditions. Periodically review and update the City of Bakersfield's noise ordinance under Chapter 9.22 of the Municipal Code.

8. Amend the city and county zoning ordinances as necessary to reflect the policies and programs of the Noise Element.

9. Cooperate and discuss with all appropriate government agencies the planning documents governing noise-impact issues for consistency and coordination.

10. The following standards shall be used to determine the existence of significant cumulative noise impacts expected to result from proposed construction or development projects. The projected occurrence of such significant cumulative impacts shall require the adoption of practical and feasible mitigation measures to be identified in an Environmental Impact Report or Negative Declaration, whichever is applicable.

STANDARDS FOR CUMULATIVE NOISE IMPACTS

A significant increase in ambient noise level affective existing noise-sensitive land uses (receptors), requiring the adoption of practical and feasible mitigation measures, is deemed to occur where a project will cause:

An increase in ambient noise level of 1dB or more over 65dB CNEL, where the existing ambient level is 65dB CNEL or less;

or

The ambient noise level is less than 60 dB CNEL and the project increases noise levels by 5 dB or more;

The ambient noise level is 60 to 65 dB CNEL and the project increases noise levels by 3 dB or more;

The ambient noise level is greater that 65 dB CNEL and the project increases noise levels by 1.5 dB or more.

CHAPTER VIII - SAFETY ELEMENT

STATUTORY REQUIREMENTS

Government Code Section 65302(g) requires preparation of a Safety Element in city and county general plans as follows:

> A safety element is necessary for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

The Seismic Safety Element has been divided into three sections which address seismic safety, flooding and public safety.

A. SEISMIC SAFETY

OVERVIEW OF EXISTING CONDITIONS

Bakersfield is located near the eastern edge of the broad San Joaquin Valley, at the base of the Sierra Nevada. The valley is a large, northwest-trending trough (geosyncline) between the Sierra Nevada on the east and the Coast Range mountains on the west. The valley is filled with thick sediments eroded from the mountains on both sides.

The Kern River is the major hydrologic feature of the area, bringing water from Lake Isabella reservoir through the Kern River Canyon. In the Bakersfield area, the river has created the large Kern River fan, covering approximately 300 square miles of the valley. The Kern River flood plain is incised into the upper part of the fan, north of downtown Bakersfield, but spreads out across the broad, flat lower fan.

There are numerous geologic fractures in the earth's crust within the San Joaquin Valley. The most prominent is the San Andreas Fault.

Other types of fault systems occur in the Bakersfield region, as in most of California, due to the continual and historical convergence of the continental plates.

Potential seismic hazards existing in the planning area include strong ground shaking, fault rupture, liquefaction, earthquake induced landslides and potential inundation from the failure of Lake Isabella dam. Other geologic hazards in the planning area include flooding, landslides, and subsidence.

In addressing the potential geologic and seismic hazards of the plan area, the siting and design of certain essential and critical facilities must be properly planned for if public health and safety are to be maintained following a disaster. Most critical and essential facilities in, or influencing, the Bakersfield metropolitan area (e.g. hospitals, schools, dams, etc.) are under state or federal regulation and control, and may be beyond the control of local jurisdictions. Other projects, including many critical facilities, are under local discretionary jurisdiction, and are therefore affected by the policies established in this plan.

San Andreas - The San Andreas fault is approximately 650 miles long reaching from a submarine intersection with the Mendocino escarpment at the north to the Imperial Valley at the south. Along this extent, the San Andreas fault is considered to be the boundary between the North American Plate and the Pacific Plate. These plates have relative motion such that the Pacific Plate has been moving to the northwest at rates estimated from 1-1/2 to 2-1/2 inches per year (Anderson, 1971) for the past 30 million years. Not all of the movement has been accommodated on the San Andreas fault, but it has slipped the most and is the most conspicuous feature of the plate boundary.

The geologic history of displacements along the San Andreas fault is a difficult problem that has only recently begun to yield to investigations. No clear and consistent picture has yet emerged from these investigations. The difficulty of the problem arises in attempting correlations of geologic markers across the large offsets present in the fault, complicated by non-uniform offset along the fault (i.e., accommodations of slip by other structures) and by many episodes of movement.

In general, the maximum Quaternary offset due to a single earthquake can not be determined due to the superposition of the effects of movements. However, a study by Wallace (1968) does relate to the problem. By noting the frequency of occurrence of stream offset distances across a portion of the San Andreas fault, he attempted to reconstruct the history of the movement.

The lack of means for dating particular offsets precluded the desired time history and only one peak was evident in the distribution of offset distances. This peak was 30 feet and was attributed to the 1857 earthquake. Wallace concluded that 30 feet may well represent the maximum possible displacement along this portion of the San Andreas fault. Such a value compares reasonably well with values for the 1906 San Francisco earthquake, 15-1/2 feet average maximum with 21 feet at one locality.

In the 1857 Fort Tejon earthquake, the San Andreas fault was ruptured for a distance of 200 miles or more. This earthquake is known only by a few historical accounts but it is certainly ranked as one of California's greatest earthquakes and its magnitude has been estimated as 8.0± 0.5 (California Division of Mines, 1972). Taking the upper limit, an earthquake of Magnitude 8.5 will be considered as the maximum earthquake on this portion of the San Andreas fault.

The segment of the San Andreas through Kern County is relatively short compared to its 650 mile length. It is important, however, because the system breaks from its predominant northerly trending direction between the San Luis Obispo and Los Angeles County lines. Perhaps a significant reason for the break is the existence of the Big Pine Fault, trending SW into Lockwood Valley and the Garlock Fault, trending NE near Lebec.

Significant land features created by the San Andreas in Kern County include the cut through Mil Potrero (Pine Mountain Club) and Cuddy Valley, where a series of bogs, marshes and sag ponds exist; Cuddy Creek between Lake of the Woods and Frazier Park (the creek diverts at the junction of the San Andreas and Garlock systems and flows into the Castac Lake Playa); the division between the Coast Ranges and Transverse Range in the County.

White Wolf Fault - The White Wolf fault is a southeast dipping left lateral oblique reverse fault 45 miles long (Warne, 1965). This fault was recognized on the basis of its topographic expression by A. C. Lawson in 1906. On July 21, 1952, the White Wolf fault ruptured, producing an earthquake of magnitude 7.5 and subsequently an extensive sequence of aftershocks. Data on this fault has been summarized from Jenkins and Oakeshott (1955).

At its northeast end, the fault is first evident in lower Tehachapi Canyon. It trends south 50 degrees west along steep, northwest facing slopes of Bear Mountain to Comanche Point. From there it extends across the southern end of the San Joaquin Valley to Wheeler Ridge. Indirect evidence suggests that the fault may possibly extend further towards the San Andreas fault. On the basis of aftershock hypocenter (epicenter) locations, the dip of the fault has been determined as 60 to 70 degrees to the southeast. Surface exposures of the fault show highly variable dips.

The White Wolf fault is thought to have initiated in Miocene time; it has been active for most if not all of the Pliocene, Pleistocene and Holocene epochs. Total uplift of the southeastern block is of the order of 10,000 feet; left lateral offset is no more than 2,000 feet. The detailed displacement history of the fault is unknown except for its 1952 movement.

Maximum reliably observed displacements in 1952 were 3 to 4 feet vertically and about 2 feet horizontally (left-lateral). In 1952 the main shock hypocenter (epicenter) was close to Wheeler Ridge.

Surface rupture occurred along the northern and southern portions of the fault. Presumably, displacements were absorbed in sediments along the central portion of the fault where it crosses the San Joaquin Valley.

The earthquake was impressive, claiming 12 lives, causing at least $50 million in property damage, caused the closure of railways, and interrupted power in Los Angeles. Slumping and surface ruptures caused irrigation breaks and subsurface movement disturbed well output. It was felt as far away as Reno, Nevada, San Francisco, and damaged one building in San Diego.

One of the larger aftershocks of the sequence was the Bakersfield earthquake of August 22, 1952, having a magnitude of 5.8. There were at least 20 aftershocks with a magnitude of 5.0 or greater.

The magnitude 7.5 earthquake of 1952 on the White Wolf fault has been the largest event, in fact the only large event, on the fault in historic time. Although surface rupture formed along only 17 miles of the surface trace of the fault, rupture probably occurred along most of its 45 mile length. A magnitude of 7.5 must be quite close to the earthquake of greatest magnitude for the White Wolf fault.

Significant features caused by the fault are the valley at the junction of Highways 58 and 223 (sometimes called "White Wolf Valley"), and the Arvin cutoff along State Route 223.

SEISMIC HAZARDS

The south end of the San Joaquin Valley is bordered by major, active fault systems, making Bakersfield a historically active seismic area of California. These fault systems are the San Andreas, Breckenridge, Kern Canyon, Garlock, and White Wolf faults (Figure VIII-1).

On July 21, 1952, the well-known Kern County Earthquakes began as a result of movement along the White Wolf Fault. The initial shock was a 7.5 magnitude shake with the epicenter near Wheeler Ridge. Extensive damage occurred to older buildings in Bakersfield, as well as utility outages and ground rupture due to liquefaction south of the city. Severe damage also occurred in the cities of Tehachapi and Arvin to the southeast of the study area.

STRONG GROUND SHAKING

The principal seismic hazard affecting the planning area is the potential for strong ground shaking from any of the four major faults in the region.

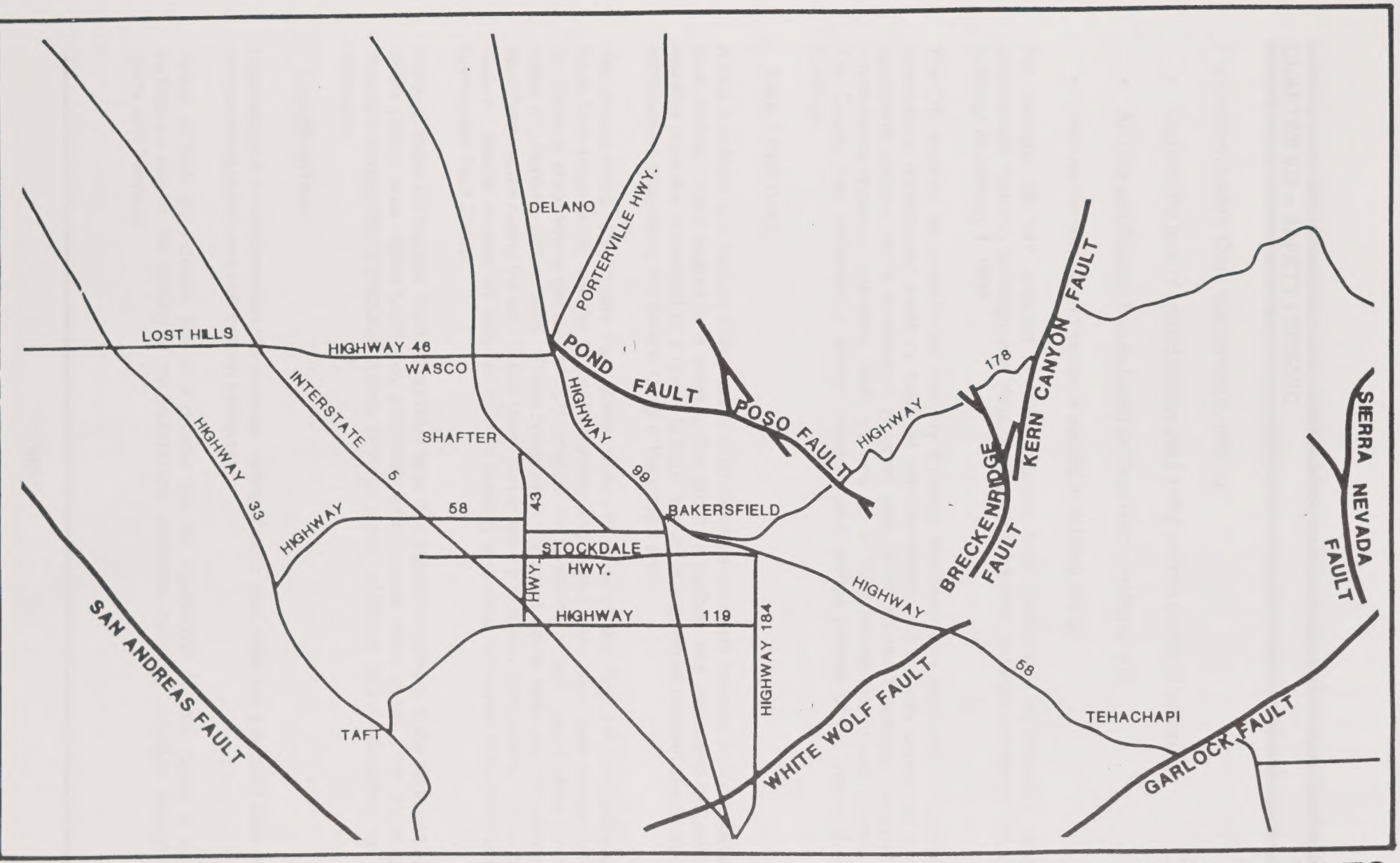
The most vulnerable structures in an earthquake are the unreinforced masonry buildings in Bakersfield, which were built before seismic codes were first instituted in the city and county. Other building types that may pose substantial hazards in an earthquake include precast concrete tilt-up buildings, and predominantly multi-story buildings of non-ductile concrete frame and composite precast concrete construction of types.

TABLE VIII-1

ACTIVE FAULTS CAPABLE OF CAUSING DAMAGE TO THE BAKERSFIELD AREA

Fault	Distance From Downtown Bakersfield (miles)	Maximum Credible Earthquake (Richter Magnitude)	Maximum Credible Causative Bedrock Acceleration (g)
San Andreas	38	8.0-8.3	0.2-0.25
Sierra Nevada	39	6.5-8.25	0.07-0.12
Garlock	35	7.5-8.0	0.17-0.18
Breckenridge-Kern Canyon	25	6.0-8.0	0.09-0.47
White Wolf	19	7.5-8.0	0.28-0.45
Pond Poso	8	7.0	0.31-0.48

Sources: DEIR, Rio Bravo Annexation, July 1976 DEIR, 2800 Acre Groundwater Recharge Facility Along the Kern River for the City of Bakersfield, February, 1983 DEIR, State College Area General Plan Amendment, March, 1980 DEIR, Gannon-Wattenbarger General Plan Amendment, February, 1981



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SCALE IN FEET

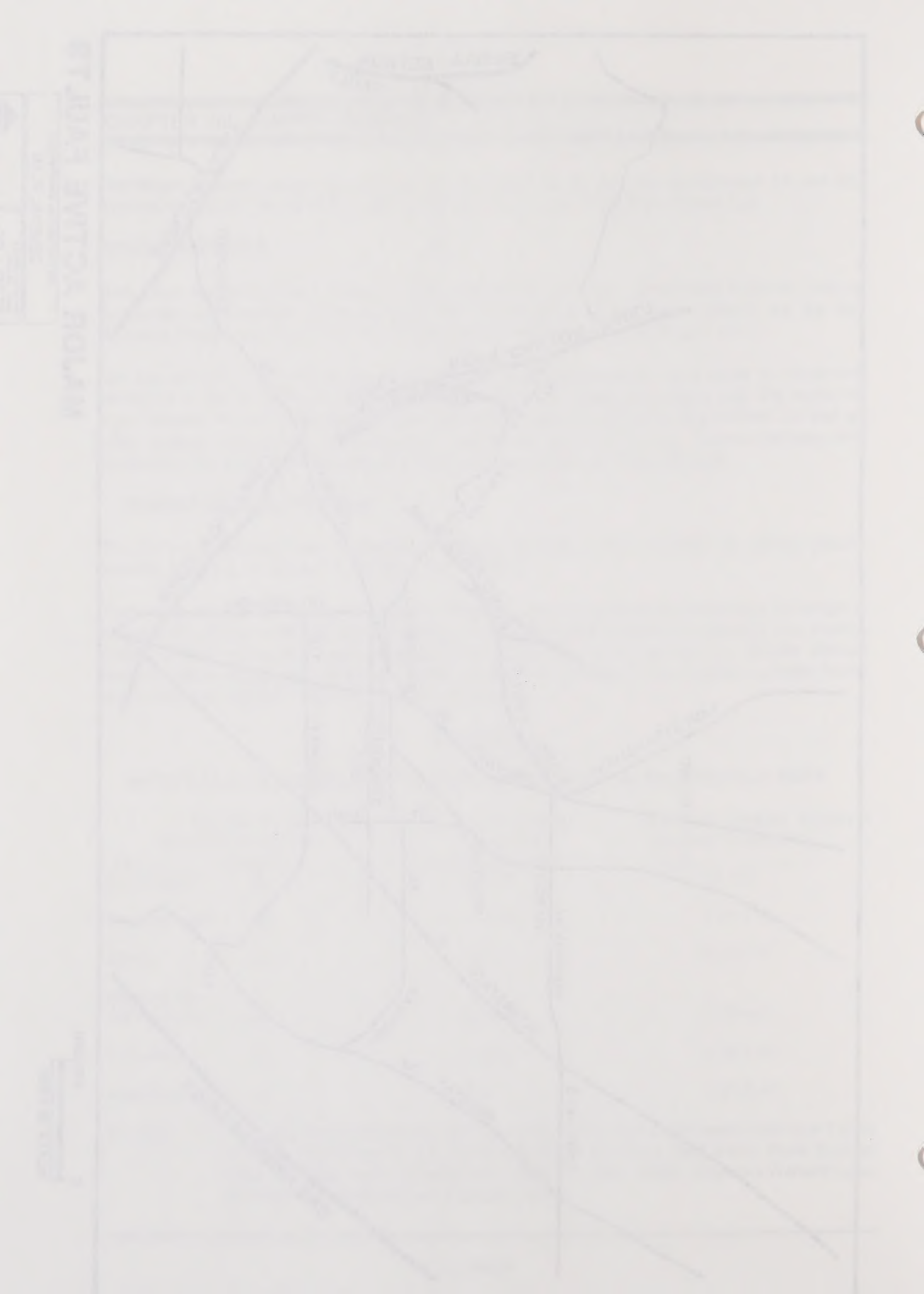
MAJOR ACTIVE FAULTS

METROPOLITAN BAKERSFIELD
GENERAL PLAN

CITY OF BAKERSFIELD
COUNTY OF KERN
KERN COUNCIL OF GOVTS
GOLDEN EMPIRE TRANSIT

NORTH

FIGURE VIII-1



The Uniform Building Code was revised in 1998 to:

- Upgrade the level of ground motion used in the seismic design of buildings;
- Add site amplification factors based on local soils conditions; and
- Improve the way ground motion is applied in detailed design.

For example, SB 547, enacted in 1986, required local jurisdictions to inventory existing unreinforced masonry buildings and develop structural hazards reduction programs for such buildings by January 1, 1990.

The City program for unreinforced masonry buildings has been very successful. A complete inventory of unreinforced masonry buildings was completed and the City conducted a very aggressive seismic retrofit construction program after 1990. Of those buildings identified as "unreinforced masonry structures", 85% are now up to 1993 seismic construction standards. The County has performed a similar inventory and notified owners of the status of their buildings.

FAULT RUPTURE

A fault is defined as a fracture in the earth's crust forming a boundary between rock masses that have shifted. Fault rupture is a break in the ground's surface and associated deformation resulting from the movement of a fault. Surface rupture is a potential problem should strong earthquakes occur along the several faults in the project area.

The Alquist-Priolo Earthquake Fault Zones shown in detail on the Alquist-Priolo Earthquake Fault Zone Maps on file with the City of Bakersfield and Kern County have been designated by the State as areas where planning should consider the possibility of fault rupture along specific active or potentially active faults. These zones mark the areas where faults are considered to have been active during the last 10,000 years and to have a relatively high potential for surface rupture. Special studies are required prior to building structures for human occupancy within Earthquake Fault Zones.

Although these Earthquake Fault Zones have been designated for portions in the north and east of the project area, active faults may potentially exist outside these zones. For critical and important developments proposed outside of these zones, additional fault investigation may be necessary.

LIQUEFACTION

Liquefaction is a transformation of a granular material from a solid state into a liquified state as a consequence of increased pore-water pressures.

Areas of high groundwater are at a greater risk for liquefaction of soils during a major earthquake due to the settling of the foundations of homes, buildings, irrigation equipment, roads, and freeways.

High groundwater is known to exist at depths of 5 to 15 feet below the ground surface on portions of the Lamont quadrangle at R 28 E, T 30 S. This area, in south Bakersfield between about Brundage Lane and DiGiorgio Road (Figure VIII-2), could experience local areas of liquefaction during a strong earthquake, with attendant ground rupture and potential sinking or tilting of large buildings. Areas of high groundwater are rare elsewhere in the project area because the water table has been in a condition of subsidence due to the extraction of water for irrigation since the late 1880's.

DAM FAILURE INUNDATION

Isabella Dam, which is located about forty (40) miles northeast of Bakersfield, has a capacity to hold 570,000 acre feet of water. This dam, which is earth filled, is about 185 feet high and 1,725 feet long, and is built near a major earthquake fault.

If an earthquake were to occur in the vicinity, it could result in a break in the dam. This could, under certain conditions, cause the entire lake storage to be released, which would result in flooding 60 square miles of the Metropolitan Bakersfield and the surrounding areas of Oildale and Greenacres. The chances of the dam failing entirely, with the lake at capacity was judged as 1 day in 10,000 years (Heart Hospital FEIR).

The objective of the existing Flood Evacuation Plan for the Metropolitan Area is to provide for the protection of life and property through evacuation of areas that would be inundated.

The major evacuation routes identified within the 2010 Plan area run in a southerly and easterly direction, except the areas north of 24th Street which will be in a northerly direction to Oildale.

EARTHQUAKE-INDUCED LANDSLIDES

A strong earthquake could trigger landslides or slope failures on steeper slopes in the foothills and along the Kern River Canyon and floodplain. The common types of landslides induced by earthquakes are bluff and stream bank failures, rock falls and soil slips on steep slopes. Deep-seated landslides are not necessarily reactivated in an earthquake.

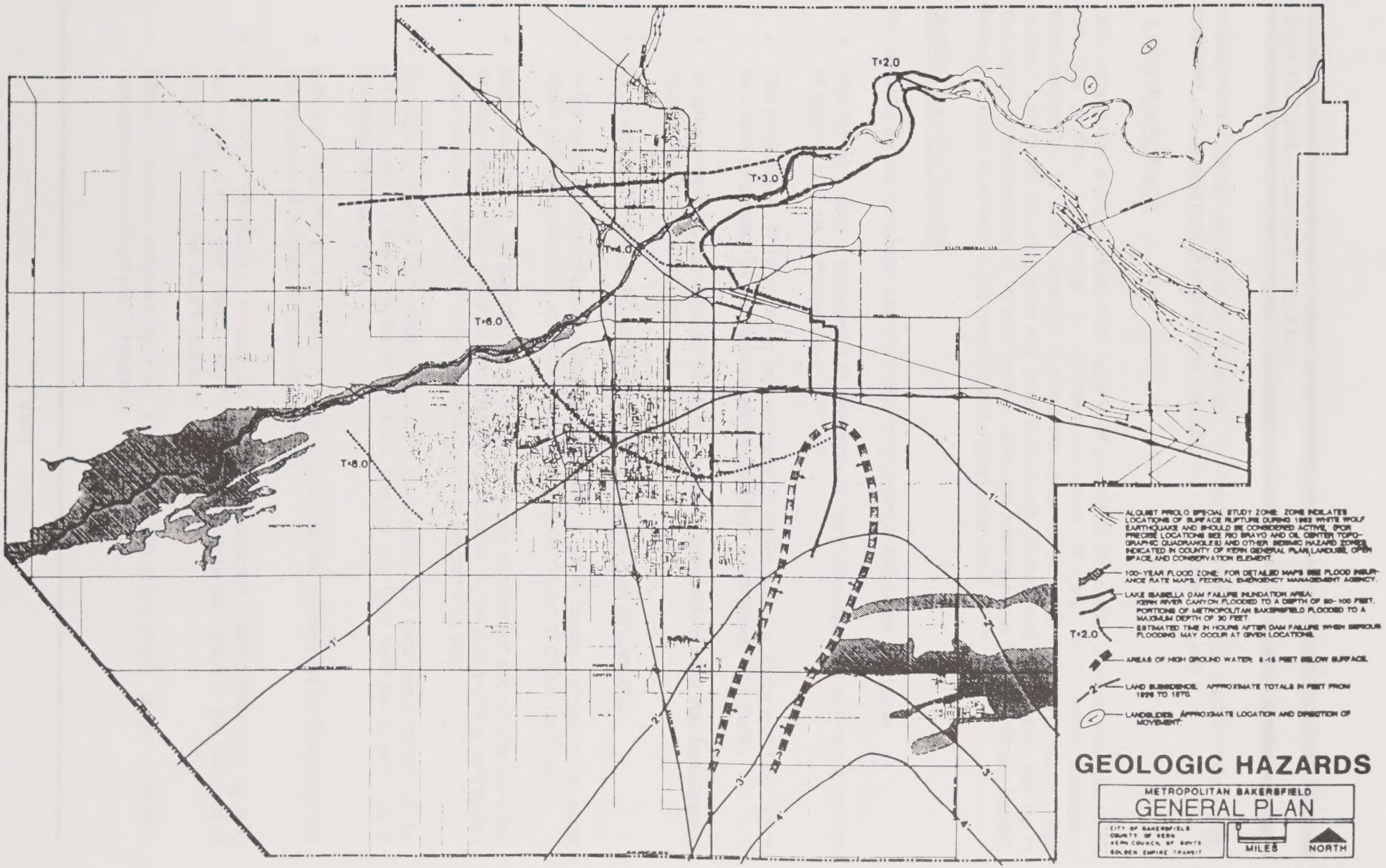
OTHER GEOLOGIC HAZARDS

FLOODING

Non-seismic-related flood hazards to the general plan area relate primarily to the Kern River floodplain. For a complete discussion of the magnitude of this flood hazard, consult the Flood Management Section (Chapter VIII B.) of the plan. Areas of potential flooding in the region have been delineated by the Federal Emergency Management Agency's National Flood Insurance Program.

LANDSLIDES

Slopes subject to failure within the Bakersfield area are predominantly found along the river terraces, bluffs and foothills to the northeast and east of the city. Investigations to date have documented two landslides in the foothills northeast of the city. Only limited exposure to landslides is predicted for the urban areas of Bakersfield, due to constraints on slope-side



GEOLOGIC HAZARDS

METROPOLITAN BAKERSFIELD
GENERAL PLAN

CITY OF BAKERSFIELD
COUNTY OF KERN
KERN COUNCIL OF GOVTS
GOLDEN EMPIRE TRANSIT

MILES NORTH

FIGURE VIII-2

development. Some construction, however, on sloping terrain could inadvertently trigger landslides unless appropriate precautions are utilized in a site-specific basis.

LAND SUBSIDENCE

Land subsidence is the gradual, local settling or sinking of the earth's surface with little or no horizontal motion. Subsidence is normally the result of gas, oil or water extraction, hydrocompaction, or peat oxidation, and not the result of landslide or ground failure. The southern part of the planning area has been undergoing gradual land subsidence, with up to four feet of subsidence over a 40-year period. Although subsidence is not a significant hazard, damage to wells, foundations and underground utilities may occur.

SEISMIC SAFETY ISSUES

The following issues have been identified regarding geologic and seismic hazards:

- The planning area is susceptible to moderate to extreme ground shaking from a number of seismic sources in the region.
- The eastern part of the planning area contains an active fault, the White Wolf fault, which has been designated by the state as an Alquist-Priolo Earthquake Fault Zone.
- An area of high ground water in the southern part of the planning area may be subject to liquefaction in an earthquake.
- More information is needed on the geographic extent of high groundwater.
- In the event of an earthquake, unacceptable risks to public health and safety can occur where sufficient standards are not incorporated into the design of critical facilities.
- Many buildings in the planning area, especially those constructed prior to the city's first seismic codes, could suffer severe damage or collapse in the event of any earthquake that produces moderate to strong ground motion in the planning area.
- Damage to Isabella Dam could require the evacuation of a substantial portion of the planning area. If communications are intact, the city may have from two to six hours to complete the evacuation.
- Effective response to a disaster or a warning of disaster is essential to life-saving and the reduction of subsequent property damage.
- In a major earthquake, mutual aid sources in adjacent jurisdictions may be fully committed to their own needs, and there may be substantial delays in the transport of assistance from more distant locations.
- Effective disaster preparedness will require the concerted efforts of city agencies, residents and the business community.

- Effective implementation of seismic policies will reduce the magnitude of damage in an earthquake, but a variety of damage should still be expected.

- Ultimate post-earthquake survival will depend not only on the effectiveness of hazard mitigation and disaster response programs, but also on how quickly and how well the community is re-built after an earthquake.

- A damaging earthquake presents both problems and opportunities in urban land use management. For example, if there are larger areas of substantial damage, there may be a need for short term redevelopment. This would also provide opportunities for up-grading through such measures as revised street and traffic patterns, parking, architectural and landscape design, and general land use compatibility. It would also provide an opportunity to mitigate specific earthquake hazards discovered in the earthquake.

GOALS AND POLICIES

The following presents the goals and policies for seismic safety in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Substantially reduce the level of death, injury, property damage, economic and social dislocation and disruption of vital services that would result from earthquake damage.

2. Ensure the availability and effective response of emergency services following an earthquake.

3. Prepare the planning area for effective response to, and rapid, beneficial recovery from, an earthquake.

4. Prevent loss of life from the failure of critical facilities in an earthquake and ensure the continued functioning of essential facilities following a disaster.

5. Protect essential lifelines and prevent casualties and major social and economic disruption due to liquefaction in an earthquake.

6. Provide a continuously improving data base and reference source for evaluation of seismic and geologic hazards.

7. Protect land uses from the risk of dam failure inundation including the assurances that: the functional capabilities of essential facilities are available in the event of a flood; hazardous materials* are not released; effective measures for mitigation of dam failure inundation are incorporated into the design of critical

facilities; and the rapid and orderly evacuation of populations in the inundation area will occur.

* Hazardous materials are defined as injurious substances, including pesticides, herbicides, toxic metals and chemicals, liquified natural gas, explosives, volatile chemicals, and nuclear fuels.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions. For ease of implementation, policies have been arranged with respect to seismic topics they influence.

CRITICAL FACILITIES

1. Ensure that earthquake survival and efficient post-disaster functions are a primary objective in the siting, design and construction standards for discretionary essential facilities or for expansion of such existing facilities (I-1 through I-11).

2. Require that the siting and development of critical facilities under discretionary approval by the City Council and Board of Supervisors be supported by documentation of thorough hazard investigations relating to site selection, pre-construction site investigations and application of the most current professional standards for seismic design (I-1, I-2, I-10, I-13, I-26, I-29).

3. Encourage existing critical facilities with significant seismic vulnerabilities to be upgraded or relocated as appropriate (I-4).

4. Encourage critical facilities in dam inundation areas to develop and maintain plans for safe shut-down and efficient evacuation from their facilities, as appropriate to the degree of flood hazard for each facility (I-26, I-31).

5. Incorporate planning for incidents affecting critical facilities into contingency plans for disaster response and recovery (I-31).

HAZARDOUS BUILDINGS

6. Inventory all unreinforced masonry buildings in the planning area for conformance with state legislation and guidelines (i.e. SB 547, enacted in 1986 (I-5)).

7. Continue to address seismically hazardous buildings pursuant to Chapter 12.2 (§8875 et seq.), Division 1 of Title 2 of the Government Code (I-5 through I-8).

8. Require seismic review of other potentially hazardous buildings upon any change in their use or occupancy status (I-9).

9. Adopt and maintain high standards for seismic performance of buildings, through prompt adoption and careful enforcement of the most current seismic standards of the Uniform Building Code (I-1, I-2, I-3, I-5, I-7, I-10 through I-12).

FAULT RUPTURE

10. Prohibit development designed for human occupancy within 50 feet of a known active fault and prohibit any building from being placed astride an active fault (I-14, I-15).

11. Require site-specific studies to locate and characterize specific fault traces within an Alquist-Priolo Earthquake Fault Zone for all construction designed for human occupancy (I-13).

12. Design significant lifeline installations such as highways, utilities and petrochemical pipelines which cross an active fault, to accommodate potential fault movement without prolonged disruption of an essential service or creating threat to health and safety (I-16).

LIQUEFACTION

13. Determine the liquefaction potential at sites in areas of high groundwater prior to development and determine specific mitigation to be incorporated into the foundation design, as necessary to prevent or reduce damage from liquefaction in an earthquake (I-17 through I-19).

14. Route major lifeline installations around potential liquefaction areas or otherwise protect them against significant damage from liquefaction in an earthquake (I-20).

INFORMATION

15. Compile information on areas of potential hazards and field information developed as part of CEQA investigations and geo-logic reports and keep geologic reviews and policy development current and accessible for use in report preparation (I-21, I-22, I-23, I-25).

16. Encourage and support local, state and federal research program for delineation of geologic and seismic hazards so that acceptable risk may be continually reevaluated and kept current with state-of-the-art information and contemporary values (I-24).

17. Require known geologic and seismic hazards within the area of a proposed subdivision to be referenced on the final subdivision map (I-25).

DAM FAILURE INUNDATION RISK

18. Design discretionary critical facilities located within the potential inundation area for dam failure in order to: mitigate the effects of inundation on the facility; promote orderly shut-down and evacuation (as appropriate); and, prevent on-site

hazards from affecting building occupants and the surrounding communities in the event of dam failure (I-26).

19. Design discretionary facilities in the potential dam inundation area used for the manufacture, storage or use of hazardous materials to prevent on-site hazards from affecting surrounding communities in the event of inundation (I-27).

20. Require emergency response plans for the planning area to include specific procedures for the sequential and orderly evacuation of the potential dam inundation area (I-28).

21. Encourage critical and high-occupancy facilities as well as facilities for elderly, handicapped and other special care occupants located in the potential inundation area below the dam to develop and maintain plans for the orderly evacuation of their occupants (I-35).

EMERGENCY MANAGEMENT

22. Require local agencies to coordinate with the business community to reduce seismic hazards (I-29 through I-36).

23. Increase the public awareness of seismic hazards in residents of the city and county (I-35)

24. Require the city's and county's emergency preparedness programs to have a three-fold emphasis: hazard mitigation, disaster response and self-sufficiency of residents, business and industry (I-1 through I-36).

25. Require the emergency management program to include effective plans for disaster/earthquake response, training of responsible personnel, mutual aid agreements for all appropriate functions, and exercises conducted at least annually to test and evaluate plan capabilities (I-29 through I-33).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Safety Element affecting seismic safety. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Amend city and county building and zoning ordinances to incorporate specific standards for siting and seismic design of critical facilities.

2. Require detailed site studies for ground shaking characteristics, liquefaction potential, dam failure inundation and flooding potential, and fault rupture potential, as background to the design process for critical facilities under city and county discretionary approval.

3. Require structures that are within the plan area and are subject to Building Department review to adhere to the most current seismic standards adopted as part of the Uniform Building Code.

4. Review existing critical facilities for any significant siting, design or construction problems that would make them vulnerable in an earthquake. The findings shall be incorporated into emergency operations plans as well as addressed in longer-term programs of facilities upgrading or relocation.

5. Conduct (Department of Building Inspection) an inventory of all unreinforced masonry buildings in the planning area, including all information required by applicable state legislation and guidelines.

6. Require notification to owners of potentially hazardous buildings, pursuant to state legislation, and publication or availability of the list of such buildings for public information.

7. Continue the existing program for seismic upgrading of unreinforced masonry buildings.

8. Consider a special recognition program for buildings that have been reinforced under the hazardous buildings ordinance, such as a plaque or certificate that can be displayed on the building.

9. Maintain cognizance of other types of potentially hazardous buildings and programs developed for the reduction of seismic hazards. For example, concrete tilt up and concrete frame buildings built before enactment of the current seismic codes should be required to meet basic seismic standards before a change in use or occupancy level is approved, or when significant alteration or repair is proposed.

10. Develop appropriate criteria and procedures for third-party review of the seismic design of critical facilities.

11. Review the current code enforcement procedures for concrete tilt-up and composite pre-stressed concrete construction for consistency with effective principles of seismic design, and revised as appropriate to maintain seismic integrity of new construction.

12. Require seismic review prior to major addition, renovation or increase in occupancy of buildings.

13. Detailed geologic investigations shall be conducted, in conformance with guidelines of the California Division of Mines and Geology, for all construction designed for human occupancy in an Alquist-Priolo Earthquake Fault Study Zone.

14. Revise city and county zoning and building codes to prohibit construction of buildings for human occupancy within 50 feet of the trace of an active fault. For Critical Facilities the set-back shall be at least 300 feet.

15. Reflect the location of active faults in zoning and subdivision approvals, through low-density zoning designations and through locations of lot lines and public ways to allow adequate flexibility in placement of buildings such that active fault traces can be avoided.

16. Require plans and permits for installation of major lifeline components such as for highways, utilities and petroleum or chemical pipelines to incorporate design features to accommodate potential fault movement in areas of active faults without prolonged disruption of an essential service or threat to health and safety.

17. Require liquefaction investigations in all areas of high groundwater potential and appropriate foundation designs to mitigate potential damage to buildings on sites with liquefaction potential.

18. Develop specific guidelines for the collection of data for determination of liquefaction potential at a site.

19. Require the proper sealing of any abandoned wells and the removal of abandoned underground irrigation and drainage systems to be accomplished prior to subdivision approval in areas of high groundwater, to prevent the uncontrolled flow of water from adversely affecting long-term efforts for liquefaction and groundwater mitigation.

20. Route major lifeline components such as for highways, utilities and petroleum or chemical pipelines around areas of high groundwater wherever possible. Where they must cross an area of high groundwater, plans and permits shall require design features to accommodate extensive ground rupture without prolonged disruption of an essential service or threat to health and safety.

21. Compile maps showing the location of all geologic hazards, including: active faults, Alquist-Priolo Earthquake Fault Zones, 100-year flood hazard, extent of projected dam failure inundation and time arcs, depth of inundation, land subsidence, slope failure and earthquake-induced landslides, high groundwater and liquefaction potential.

22. Compile information on areas of potential hazard. Field information developed as part of CEQA investigations and geologic reports by the city/county geologists should be kept current and accessible for use in report preparation, geologic reviews and policy development.

23. Update the County's Seismic Hazards Atlas as necessary.

24. Encourage and support local, state and federal research programs for delineation of geologic and seismic hazards so that acceptable risks may be continually

reevaluated and kept current with state-of-the-art information and contemporary values.

25. Require known geologic and seismic hazards within the area of a proposed subdivision to be referenced on the final subdivision map.

26. Develop procedures for the discretionary review of critical facilities proposed in an area of potential dam inundation. Approvals shall include requirements that emergency shut-down and facility evacuation plans be developed, maintained and exercised for each facility, and the potential effects of inundation on essential facility functions and the safety of occupants and the community in general are addressed.

27. Facilities used for the manufacture, storage or use of hazardous materials shall comply with the uniform fire code, with requirements for siting or design to prevent on-site hazards from affecting surrounding communities in the event of inundation.

28. Incorporate specific plans for the sequential and orderly evacuation of the potential dam inundation area into emergency response plans.

29. Maintain effective disaster response and earthquake response plans and update on a regular basis.

30. Require the city and county to maintain effective mutual aid agreements for fire, police, medical response, emergency morgue, mass care, heavy rescue, and other functions as appropriate.

31. Require emergency response plans and disaster exercise scenarios to include contingencies for the problems listed below; earth-quake response exercises shall be conducted at least once a year.

- Rupture of any active fault within 40 miles of Bakersfield.
- Collapse of 50 buildings or more, including some mid-rise structures, some essential facilities and numerous unreinforced masonry buildings.
- Ground rupture and attendant property damage due to pockets of liquefaction in areas of high groundwater.
- Complete evacuation of the potential inundation area.
- Many aftershocks, continuing for many weeks or months.

32. Require disaster response plans to include adequate capabilities for search and rescue, medical responses, interim morgue, emergency shelter, traffic and utility impacts, debris removal and disposal, as well as hazardous materials response.

33. Require disaster response plans to include procedures for traffic control and security of damaged areas.

34. Seek public participation in the development of hazard mitigation and disaster recovery programs.

35. Require public education and preparedness to be a major, continuing component of the emergency preparedness program. It should include, at a minimum:

- The existence and approximate locations of local faults, liquefaction susceptibility areas, and the dam evacuation area, and the procedures that have been developed to deal with them.
- The potential for strong ground shaking in the area, and means of strengthening buildings and protecting furnishings, equipment and other building contents from damage.
- The need for business and residents to be self-sufficient for several days following an earthquake, including food, water, sanitation, medical assistance, and limited fire fighting.
- The provision for the orderly evacuation of elderly, handi-capped and other special-care persons.
- What people and businesses should do to help themselves before, during and after earthquakes.

36. Enlist the cooperation of the business community for public education, preparedness of business and industry, and mutual assistance.

B. FLOODING

REVIEW OF EXISTING CONDITIONS AND ISSUES

Flooding within the planning area originates from the Kern River watershed which lies in Kern and Tulare Counties at the southern end of the Sierras, and from the Caliente Creek stream group which drains the west slopes of the Tehachapi Mountains. Some smaller areas are subject to flooding from localized watersheds.

The most severe flooding problems on the Kern River near Bakersfield have resulted from high-intensity winter rainstorms over a large portion of the basin, which generally occur from November through April. Snow melt floods, which usually occur in the late spring and early summer, generally have a longer period of runoff and also a lower peak than rain floods, as a result, these spring storms have rarely caused significant damage.

The most severe rainstorm on record in the southern San Joaquin Valley occurred December 2-7, 1966. The United States Army Corps of Engineers (USACOE) estimated that if Isabella Reservoir had not been built, flow on the Kern River six miles upstream of Bakersfield would have been approximately 80,000 cubic feet per second (cfs). Actual flow was only 9,300 cfs at Bakersfield and consisted primarily of inflow from tributary streams entering the river between Lake Isabella Dam and the City of Bakersfield.

In the past 40 years, seven major floods along Caliente Creek have occurred. Floods in September 1932; April 1943; March 1944; October 1945; December 1966; February 1969; March 1983 and during the "El Nino" of 1998, have been investigated by the Kern County Water Agency and the USACOE. The frequency and the magnitude of these floods, coupled with the existing development in the floodplain have caused extensive flood damage to the Lamont/Arvin area. A series of localized flood control projects are under consideration by the County.

PLANNING TOOLS FOR FLOOD HAZARD MITIGATION

The City of Bakersfield entered the Regular Phase of the National Flood Insurance Program (NFIP) as administered by the Federal Emergency Management Agency (FEMA) on May 1, 1985. The County of Kern followed on September 29, 1986. By adopting flood damage prevention ordinances to regulate development in special flood hazard areas, private property owners in participating communities are allowed to purchase affordable flood insurance through the NFIP, while the community retains its eligibility to receive certain federally backed monies, and disaster relief funds.

Both the City of Bakersfield and the County of Kern participate in the state-mandated Kern River Designated Floodway program, which is administered by the California Department of Water Resources Reclamation Board.

The Kern River Designated Floodway Program provides development criteria and issues permits for development within the limits of the Kern River Designated Floodway.

Floodplain mapping has been performed under the NFIP to delineate the special flood hazard areas. The City of Bakersfield Public Works Department and the Kern County Department of Engineering and Survey Services have the official Flood Insurance Rate Maps (FIRMS) and Flood Boundary Floodway Maps (FBFM) which show the extent of the floodplains. In addition, the communities are empowered to develop and use improved floodplain information. FEMA has accepted the California Department of Water Resources (DWR) Reclamation Board Kern River designated floodway from Interstate 5 to the mouth of the Kern River canyon, because the DWR study is based upon the 100 year peak discharge of 15,000 cfs, which exceeds the Kern River Flood Insurance Study flow of 10,200 cfs.

FEMA identifies areas of floodway, floodway fringe, and non-regulatory floodplain.

> Floodway--The channel of a river and adjacent land areas required to pass the 100-year discharge without cumulatively increasing the water surface elevation at any point more than one-foot above the prefloodway condition.
>
> Floodway Fringe--The area of the 100 year floodplain outside of the Floodway.
>
> Non-regulatory floodplain--All other areas outside of the 100-year floodplain. Protection provisions of the NFIP do not apply.

Both the city and county have adopted general plan designations which identify allowable uses in the floodplain. Local zoning ordinances more closely define known areas to have potential for flooding.

In July 1985, both the city and county adopted the Kern River Plan Element (KRPE) as a part of their general plans. The KRPE establishes provisions for development along the Kern River, and specific policies for floodplain management.

The Flood Damage Prevention Ordinance provides criteria for development within all floodplains, including prohibiting encroachments into a floodway, and requiring protection and/or elevation of construction within a floodway fringe.

With the construction of Isabella Dam, hazards from a 100-year flood have been substantially reduced for the Oildale/Bakersfield metropolitan area. New development within the 100 year floodplain will be required to be flood protected.

The Caliente Creek floodplain will continue to experience flooding until the localized programs and facilities can be implemented.

The City of Bakersfield has merged the Kern River Levee into its Water Resources Department operation. The established levee system will be maintained to USACOE standards. The USACOE provides an annual inspection and maintenance report in the evaluation of the Kern River Levee.

FLOODING ISSUES

- Protection of the planning area from flooding.
- Minimizing loss due to flooding.

GOALS AND POLICIES

The following presents the goals and policies for floodplain management in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Minimize hazards to planning area residents resulting from flooding.
2. Reduce the risk of flooding to land uses.
3. Maintain adequate flood flow capacity in the Kern River channel to prevent flooding from anticipated 100 year design flood flows.
4. Regulate flood flow on Caliente Creek to mitigate flood hazard in the Lamont area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Develop specific standards which apply to development located in flood hazard areas, as defined by Federal Flood Insurance maps and most recent information as adopted by the responsible agency (I-1, I-2).
2. Maintain adequate levees along the Kern River channel throughout the planning area (I-4).
3. Prevent urban development encroachment which would impede flood flows in the Kern River designated floodway (I-3, I-5).
4. Remove sand and excessive plant growth from the Kern River channel as required to maintain channel capacity through the planning area (I-6).

5. Develop a program or series of programs to control and reduce flooding in the Lamont area resulting from Caliente Creek (I-7).

6. The County's Flood Prevention Program shall be implemented for new development in areas of flooding potential.

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Safety Element affecting flooding. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Develop appropriate procedures for discretionary approval of all critical facilities in an area of identified flood hazard, with requirements for mitigation of the potential effects of flooding on essential facility functions and the safety of occupants and the community in general.

2. Develop procedures for the review of proposed facilities which use, manufacture or store hazardous materials proposed in areas of identified flood hazard.

3. Review current zoning designations, street width and traffic flow patterns in and adjacent to areas of identified flood hazard for compatibility with orderly evacuation, and identify and implement appropriate change in immediate and long-term policies and programs.

4. Consolidate and continue the activities of the Kern River Levee District in maintaining the Kern River levees.

5. Comply with the regulations and guidelines contained in the City/County adopted Kern River Plan Element of the City and County General Plans, and the zoning and floodplain management regulations which implement the Plan.

6. Implement the Kern River Channel Maintenance Program.

7. Develop a series of intercept and retention facilities to control floodwaters within the Caliente Creek drainage.

C. PUBLIC SAFETY

OVERVIEW OF EXISTING CONDITIONS AND ISSUES

Public safety services for the metropolitan area are provided by the Bakersfield Police Department, the Kern County Sheriff's Department, the Bakersfield Fire Department and Kern County Fire Services. A brief description of each follows.

CITY OF BAKERSFIELD POLICE DEPARTMENT

Seventeen patrol districts operate from the Truxtun Avenue headquarters and cover a 114 square mile area with a January, 2000 estimated population of 239,000. Police services are not divided into precincts or sub-stations; however office space is available to the department.

The Chief of Police oversees the entire department. The police department is organized into three divisions under the Assistant Chief of Police, each managed by a captain. The Support Services Division includes training, records, the communications center, crime prevention and reserves. The Investigations Division handles follow-up investigation of crimes, the crime lab, warrants and property. The Operations Division encompasses patrol and traffic. Headquarters incorporates internal affairs, the business manager and news media relations.

The police department provides law enforcement service to all areas within the city limits. Primary response to calls for service and preventative patrol are provided by uniformed offers and police service technicians in marked police vehicles. The department is currently phasing in a department-wide community oriented policy philosophy, which was previously limited to a specialized unit.

In 1996, a new 13,000 square foot wing was added to the police building to accommodate overcrowding of personnel and offices. Staff will continue to investigate building needs and off-site locations to compensate for future growth.

The seventeen patrol districts are manned on a 24-hour basis with a year 2000 average response time of 8.45 minutes for emergency priority one calls. Follow-up investigation is pursued on crimes having a solvability factor, (evidence or witness that might lead to a conclusion), resulting in an annual clearance rate of 29.7% for priority one crimes. Traffic and parking control functions are provided, with minimal investigation on property damage traffic accidents, and complete investigations on all injury, fatal, intoxication and hit and run accidents.

As the population and geographic area of the city increases, the demand for police service will similarly increase. At present, the only staffing standard applied to the police department is a ratio of officers per thousand population in cities of comparable size. For many years the City of Bakersfield utilized a ratio of 1.65 officers per thousand residents, but later reduced this ratio to 1.5 in the 1980's because other cities of comparable size average this ratio. Current staffing levels are at about 1.3 officers per thousand residents.

Within the city, the police handle both crimes and traffic accidents; in the county, the California Highway Patrol is responsible for traffic accidents and violations, while the Kern County Sheriff's Office is responsible for criminal matters.

Problems exist with regard to police services to residents in the unincorporated portions of Bakersfield. Confusion is sometimes evident when calls for police services are delayed while establishing jurisdictional responsibilities and residents are understandably annoyed when transferred to another agency. However, city police patrol units encountering a public safety problem within an unincorporated area will take the necessary action to stabilize the situation prior to the arrival of sheriff or highway patrol officers.

KERN COUNTY SHERIFF'S DEPARTMENT

The Kern County Sheriff's Department is located at 1350 Norris Road and is the headquarter facility for law enforcement services in unincorporated Kern County. Metropolitan patrol services for unincorporated Bakersfield operates from the headquarter facility and includes community policing offices in East Bakersfield and Rosedale. Service to unincorporated areas of Kern County outside of the metropolitan patrol are provided through 17 substation locations, including Lamont.

Dispatch and 911 services are handled from the Communications Center located at 2601 Panorama Drive. Detention facilities include the Central Receiving facility at 1415 Truxtun Avenue in the County Justice Building and the Lerdo facility on Lerdo Highway, approximately 12 miles north of downtown Bakersfield.

The Sheriff's Department serves a population base of 266,907 scattered throughout 8,000 square miles of metropolitan and rural areas. Primary response to calls for service and preventive patrol is provided by uniformed officers using marked sheriff vehicles.

The combined population served by the Sheriff's Department to unincorporated Bakersfield and the Lamont substation response area is 173,442 (Metropolitan Patrol = 153,509 and Lamont = 19,933). The Sheriff's Department uses a target staffing standard of one officer per 1,000 population (excluding officers assigned to the Civil Division, Detentions Division and administrative staff). The staffing ratio for metropolitan Bakersfield is 0.68 per 1,000 population, while the staffing ratio for the Lamont substation response area is 0.65 per 1,000 population (2000 figures).

Although the Sheriff's Department cooperates with the Bakersfield Police Department in patrolling the Bakersfield urban area, the staffing levels are tied to the population within each jurisdiction. Sheriff's patrol units traveling through the city will respond to observed public safety problems and call the city police for follow up.

ANALYSIS OF POLICE AND SHERIFF SERVICES

To the extent that implementation of the general plan may effect a reduction in the complexity of jurisdictional boundaries, the provision of police/sheriff services would be simplified.
General plan policy implementation which reduces sprawl or leapfrog development would be helpful in effecting more efficient public safety services.

Although both agencies have the capacity to meet public safety needs, there is some difficulty at times as to jurisdictional responsibilities due to the irregular municipal boundaries. Emergency

calls are dispatched in accord with jurisdictional boundaries which determine which agency will respond.

Mutual assistance is available and a mutual aid agreement has been approved by the City of Bakersfield and the County of Kern. Other formal agreements for specific services include joint participation in the Kern County Criminal Justice Information System and the Kern County

Emergency Incident Coordination and Interagency Agreement. Both the Sheriff and Police computer aided dispatch systems identify calls for service by city or county jurisdiction.

CITY OF BAKERSFIELD FIRE DEPARTMENT

Within the City of Bakersfield there are twelve (12) fire stations at the following locations:

Station	Location
#1	2101 H Street
#2	716 E. 21st Street
#3	3400 Palm Street
#4	130 Bernard Street
#5	700 Planz Road
#6	127 Brundage Lane
#7	4030 Soranno Drive
#8	2213 University Avenue
#9	7912 Westwold Drive
#10	12100 Alfred Harrell Hwy.
#11	7000 Stockdale Hwy.
#13	4900 Poppyseed Street

Figure VIII-3 shows both City and County fire stations in the planning area.

The Fire Department provides structural protection, fire prevention service, emergency medical service (designated first responders), rescue service, hazardous materials response, arson investigation, environmental services (a unified permit/enforcement division) and safety education to the citizenry.

Fire suppression personnel are provided at a ratio of .79 per 1,000 population. This figure does not include the 36 volunteers used to assist in fire fighting and various operations. Furthermore, this figure does not include areas of the City protected by the County.

Fire stations within the city have been positioned to meet an emergency response time of 6 minutes or less 90% of the time for the first arriving unit.

Major concerns to the department are: (a) the conflagration potential within residential areas constructed with wood shingle roofs and exterior combustible siding; (b) multiple story commercial structures without sprinkler systems; (c) high-rise building fire protection; (d) various developed areas (older developments in the County) lacking fire hydrants; and (e) hazardous

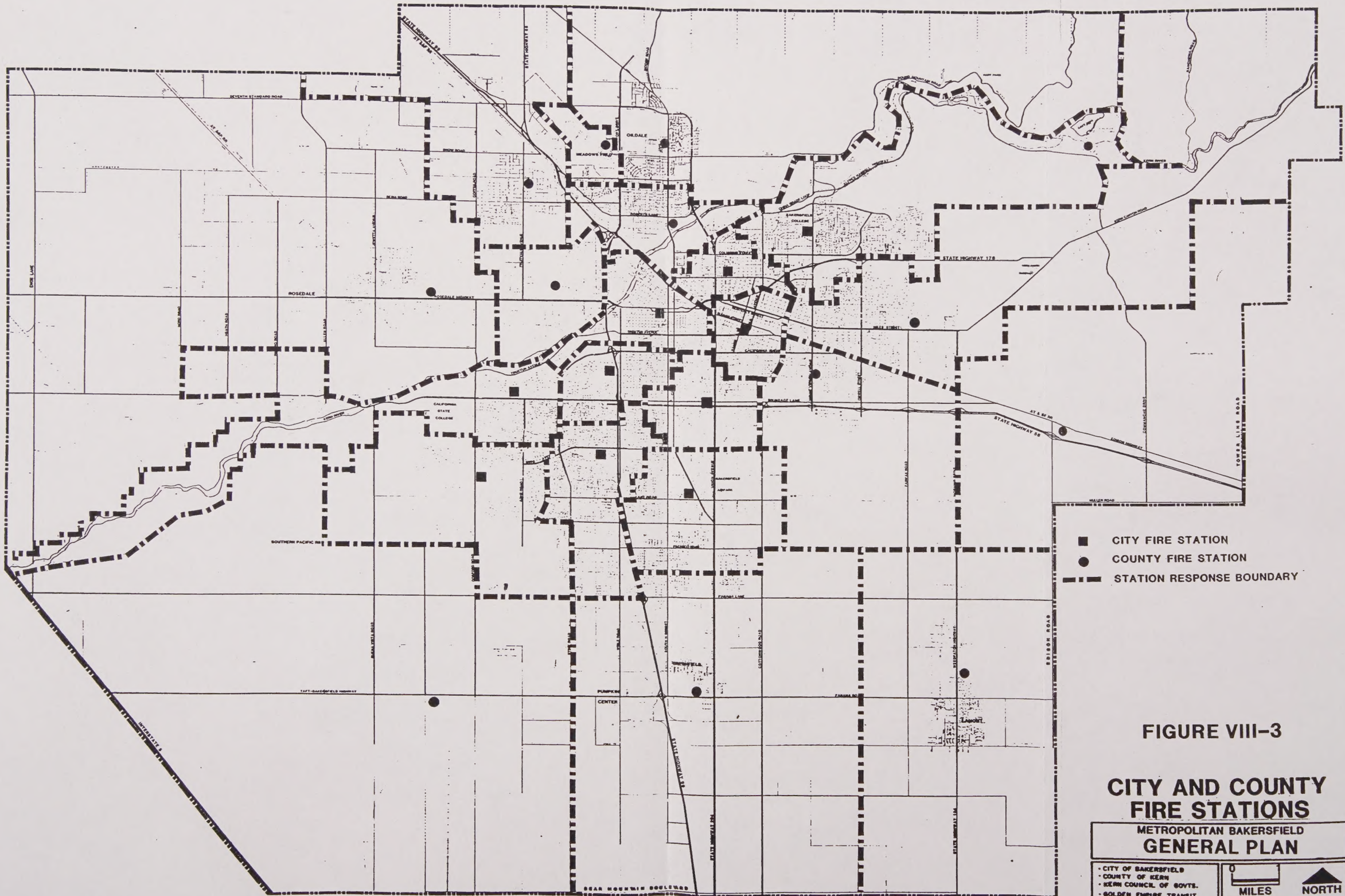


FIGURE VIII-3

CITY AND COUNTY FIRE STATIONS

METROPOLITAN BAKERSFIELD
GENERAL PLAN

- CITY OF BAKERSFIELD
- COUNTY OF KERN
- KERN COUNCIL OF GOVTS.
- GOLDEN EMPIRE TRANSIT

0 1 MILES

NORTH

South of Bakersfield

#51 Lamont	McKee & Lily
#52 Greenfield	Panama Rd & Union Ave
#53 Old River	Taft-Bakersfield Hwy & Par St.

Staffing of Fire Departments can be addressed by the number of fire suppression personnel per 1,000 population. Kern County has a total of 471 paid fire suppression personnel which results in a 1.05 per 1,000 people ratio. The county uses 180 part-time and/or volunteer, persons who are not counted in this total.

Fire stations within the Bakersfield metropolitan area have been situated to meet an emergency response time of 7 minutes or less. This is a goal and does not reflect actual experience in all incidents.

Average response times for engine companies are 3 minutes 40 seconds, and truck companies average 4 minutes 30 seconds, and/or the initial full alarm assignment within a nine-minute response time 90 percent of the time.

All of the 9 petroleum refineries in the Bakersfield metropolitan area are located within Battalion 6 and within the response area of the 4 stations north of the Kern River. These refineries contain specific hazardous materials and conduct hazardous operations. Setbacks or buffer zones must be maintained around these facilities. The specific setback for each facility is dependent on type and quantity of material used.

The Kern County Fire Department does not consider the oil and gas fields in and around Bakersfield as hazardous areas. A fire hazard area has been established for the mountainous region beginning along the eastern edge of the San Joaquin Valley. Just over six square miles of the study area is located within this fire hazard area.

In general, the Kern County Fire Department has the capacity to protect life and property within the unincorporated portions of the study area. As new growth and development occurs, increased personnel and/or facilities will be required to meet new demands for service.

The Fire Department provides fire prevention service, general watershed and structural protection, rescue and resuscitation, and arson investigation for the entire county excepting the cities of Bakersfield, California City, Delano, Shafter, and Taft. The fire department operates 47 year-round and 1 seasonal stations. Approximately 20 percent of the cost of operating the fire services is attributable to watershed protection, and 80 percent to structural fire protection.

ANALYSIS OF FIRE SERVICES

The Bakersfield Fire Department has not identified a specific fire hazard area, but has indicated a major concern with the conflagration potential within residential areas constructed with wood shingle roofs, fire control procedures in multiple-story residential and commercial structures, fire control of wild land interface areas, major transportation of hazardous materials via freeways and railroads and adequately protecting various developed areas lacking fire hydrants. These issues make fire protection more difficult and costly.

The Kern County Fire Department has designated a Hazardous Fire Area within the eastern portion of the planning area. Although the Kern County Fire Department can respond to a grassland fire within this area, the California Division of Forestry must provide the needed back-up to adequately control these range fires. Currently, this portion of the metropolitan area is sparsely developed, which limits the hazard to life and property.

With currently adopted procedures and policies, there are no conflicts between City and County fire service responsibilities within the planning area.

HAZARDOUS MATERIALS/USES

The City of Bakersfield's Office of Environmental Services, in its capacity as state and federal environmental program regulator, is primarily responsible for the prevention of soil and water contamination, as well as releases of dangerous chemicals that may impact the City's population. This role also extends to the protection of groundwater from contamination due to chemical releases.

In the unincorporated portion of Kern County, these environmental programs are administered by the Kern County Environmental Health Department. Both the City of Bakersfield and Kern County have completed and maintain a Hazardous Materials Response Plan (area plan) in compliance with the California Health and Safety Code.

The Office of Environmental Services also functions as an environmental "Permit Consolidation Zone," with the City of Bakersfield. As the Zone Administrator, the fire department facilitates all state, county and city environmental permits for those businesses that choose to use this process, enabling them to substitute one "Facility Compliance Plan" for all environmental permit requirements.

Currently, there are no active hazardous waste disposal facilities or hazardous waste underground injection disposal facilities within the planning area.

Commercial hazardous material shipping routes must be state and federally maintained roads. During facility siting, a route would be designated and only those state or federal roads serving the facility would be designated as hazardous material shipping routes.

Currently, federal regulations allow transportation of hazardous radioactive materials on all interstate highways. Trucks traveling from the highway to sites that use such materials, such as hospitals or nuclear power plants, are allowed to use the most direct route. (The California Highway Patrol has adopted I-5 as a truck route for transporting hazardous radioactive materials.)

PUBLIC SAFETY ISSUES

- Growth projections for the metropolitan area indicate a need to expand police and fire facilities and services.

- As a result of declining revenues, the burden of financing police and fire facilities and services has fallen increasingly upon local governments, requiring new and more cost effective methods of financing police and fire services.

- Although several agreements already exist between City and County police and fire protection agencies for coordination of services, this coordination could be further expanded in police services in order to improve efficiency.

- As the metropolitan area grows, the existing adopted Disaster Plan, emergency preparedness exercises and evacuation plans will become more complex, requiring more training and oversight. This will require a full time position in the near future.

- The control of the production, usage, transport and disposal of hazardous substances is a matter of both state-wide and local concern.

GOALS AND POLICIES

The following presents the goals and policies for public safety in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure that the Bakersfield metropolitan area maintains a high level of public safety for its citizenry.

2. Ensure that adequate police and fire services and facilities are available to meet the needs of current and future metropolitan residents through the coordination of planning and development of metropolitan police and fire facilities and services.

3. Provide for the coordinated planning and development of service areas for police and fire protection to ensure an equitable burden of responsibility between County and City in Metropolitan Bakersfield.

4. Assure that fire, hazardous substance regulation and emergency medical service problems are continuously identified and addressed in a proactive way, in order to optimize safety and efficiency.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Identify future site locations, projected facility expansions, projected site acquisition costs, construction costs and operational costs in a manner that would maximize the efficiency of new public safety services (I-1, I-2, I-3).

2. Require discretionary projects to assess impacts on police and fire services and facilities (I-3).

3. Adopt uniform metropolitan area standards for fire and police services, and undertake continuing metropolitan area-wide planning programs for public safety facilities (I-3).

4. Monitor, enforce and update as appropriate all emergency plans as needs and conditions in the planning area change, including the California Earthquake Response Plan, the Kern County Evacuation Plan, and the City of Bakersfield Disaster Plan (I-3).

5. Promote public education about fire safety at home and in the work place (I-4).

6. Promote fire prevention methods to reduce service protection costs and costs to the taxpayer (I-4).

7. Enforce ordinances regulating the use/manufacture/sale/ transport/disposal of hazardous substances, and require compliance with state and federal laws regulating such substances (I-4).

8. The Kern County and Incorporated Cities Hazardous Waste Management Plan and Final Environmental Impact Report serves as the policy document guiding all facets of hazardous waste (I-7,).

9. Restrict, after appropriate public hearings, the use of fire-prone building materials in areas defined by the fire services as presenting high-conflagration risk (I-5).

10. Promote crime prevention through public education (I-6).

11. Expand emergency medical services by the City and County Fire Departments, and encourage the integration of ground and air, public and private resources to achieve efficiency and effectiveness of emergency medical services (I-3).

12. Where recommended by appropriate local, State or Federal agencies for discretionary projects, soils shall be tested for concentrations of agricultural chemicals prior to grading permit approval, whenever feasible. Contaminated soils shall be excavated and disposed of at a certified hazardous waste disposal facility whenever necessary

13. Fugitive dust emissions shall be controlled through applicable requirements (Regulation VIII) set forth by the San Joaquin Valley Unified Air Pollution Control District, including but not limited to; irrigation, paving of construction roads, and limiting grading activities during periods of high wind. These practices would reduce potential adverse health effects resulting from the development of agricultural property.

14. Establish buffer zones adjacent to urban development proposals located adjacent to agricultural areas, as recommended by the Kern County Agricultural Commission

15. Fugitive dust emissions shall be controlled through applicable requirements set forth by the San Joaquin Valley Unified Air Pollution Control District (Regulation VIII), including but not limited to; irrigation, paving of construction roads, and limiting grading activities during periods of high wind. These practices would reduce potential adverse health effects as a result of exposure to Coccidioidomycosis.

16. All new discretionary development projects shall be subject to environmental and design review on a site-specific, project-by-project basis, including but not limited to, an assessment to determine whether hazardous materials present potential health affects to human health as required by the Department of Environmental Services

IMPLEMENTATION

1. City funding of Police and Fire operations and maintenance costs will be provided through City General Fund Tax Revenues.

2. Funding for Police and Fire equipment and facilities will be facilitated through bond issues and/or development fees and/or land dedications and/or assessment districts.

3. Recommend improvements to emergency medical services. Develop standards for orderly transfer of responsibility between City and County to ensure equitable funding of services.

4. Provide adequate fire services budget resources, and continuing administrative emphasis, to effect Policies 7, 8 and 9.

5. Direct the fire service agencies serving the metropolitan area to mutually prepare and recommend area-specific ordinances to effect Policy 11 for City and County legislative body consideration.

6. Provide adequate law enforcement services budget resources, and continue administrative emphasis to effect Policy 12, including periodic review and update of information systems technology to increase effectiveness, the Neighborhood Watch programs, and similar crime prevention activities and programs.

7. Coordinate City and County efforts during review of proposed hazardous waste facilities, transportation rates, household and small business collection programs and public education programs.

CHAPTER IX – DOWNTOWN REDEVELOPMENT ELEMENT

CHAPTER RESERVATION – CITY OF BAKERSFIELD

CHAPTER X - PUBLIC SERVICES AND FACILITIES ELEMENT

STATUTORY REQUIREMENTS

The Public Services and Facilities Element is an optional element of the General Plan in accordance with California Government Code Section 65303. This element addresses general utility services, water distribution, sewers, storm drainage, street lighting and solid waste.

CHAPTER X - PUBLIC SERVICES AND FACILITIES ELEMENT

A. GENERAL UTILITY SERVICES

OVERVIEW OF EXISTING CONDITIONS

Public utility services in the planning area are provided by a variety of public agencies and private companies. Although policies for the financing of new facilities, facilities extensions, and operating and maintenance costs of utility services vary greatly between the various agencies and companies, there is an increasing trend to require new development to be responsible for financing of the new or expanded utility facilities to serve such development.

Electric power supply and distribution for the entire planning area is furnished by Pacific Gas and Electric Company. Natural gas is supplied by Pacific Gas and Electric Company and by Southern California Gas Company. Telephone service is supplied to the total metropolitan area by several companies. Facility expansion cost responsibilities, and service rates, are governed by the California Public Utilities Commission. Cable TV service is provided to the metropolitan area by Cox Cable and Time-Warner under the terms of city and county franchises regulating installation and service charges.

The other public utility services for the planning area, wastewater collection and treatment, water supply and distribution, storm drainage, solid waste collection and disposal, and street lighting are briefly described at the beginning of subsections of this chapter.

GENERAL UTILITY SERVICE ISSUES

The following public utility issues have been identified:

- The provision of utility services to the metropolitan area is currently subject to fragmented planning and potential duplication and overlap as a result of the multiplicity of agencies which provide such services.

- The financing of municipal-type utility services for anticipated metropolitan area growth is an increasing problem in view of increasingly restricted local government financial resources.

GOALS AND POLICIES

The following presents the goals and policies for general utility services in the planning area. Implementing programs are contained in the following subsection. At the end of each policy is

listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Maintain a coordinated planning and implementation program for the provision of public utilities to the planning area.

2. Coordinate the planning and implementation of planning area municipal-type utility facilities and services.

3. Develop continuing agreement between the local government agencies providing municipal-type public utility services to the planning area as to service area boundaries and responsibilities.

4. Develop funding principles and programs which will assure that all new development will pay for the incremental costs of the public facilities and services--utilities bridges, parks, and public safety facilities--both on-site and off-site, to serve such development.

POLICIES

Goals will be achieved through the following policies which set more specific direction and guide actions.

1. Strengthen existing procedure by which city, county and special district staffs coordinate planning for specific individual urban services public works projects and programs (I-1).

2. Seek agreement between the county, city, and special districts serving the metropolitan area regarding an appropriate lead-agency designation for municipal-type utility facilities and services planning and coordination (I-2).

3. Municipal-type utility services within the city's sphere of influence (or designated urban area) should be provided (I-2, I-6).

4. Develop an acceptable method of providing temporary city services outside municipal corporate boundaries based on agreements to annex, in circumstances where such agreements are of mutual benefit to the city and the served unincorporated area (I-2).

5. Require all new development to pay its pro rata share of the cost of necessary expansion in municipal utilities, facilities and infrastructure for which it generates demand and upon which it is dependent (I-3).

6. Utilize financing methodologies which enable local agencies to assist in financing of projects within the area which are essential to development in accord with the General Plan and of scope too large to permit financing by individual developments (I-4).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Public Services and Facilities Element affecting utilities. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Consider the formation and implementation of a more formalized staff-level public works facilities coordinating group with membership from all major local government agencies with public utility responsibilities within the planning area.

2. An needed, form an ad-hoc committee of representatives from each local agency, including both elected and appointed officials, providing municipal-type utility services to ensure coordinated and efficient service.

3. Review existing fee structures and ordinances, and adopt modifications thereto, which require equitable and adequate pro rata cost sharing by all new development. Include in such new fee structures and ordinances provisions for obtaining and financing of full-width rights-of-way for ultimate street and highway needs, and major wastewater collection system additions and extensions of facilities sized for ultimate development.

4. Create benefit assessment districts or establish service fees for the distribution of costs to users for capital improvement replacement costs and maintenance, utilizing such districts for the financing of improvements which are essential to planning area development.

5. Encourage development of compatible implementing ordinance between city and county.

B. WATER DISTRIBUTION

OVERVIEW OF EXISTING CONDITIONS AND ISSUES

EXISTING SERVICES

Chapter V, the Conservation Element, generally describes the water resources available for the region and for the study area

A major portion of the City of Bakersfield is served by California Water Service Company, a privately held public utility; its water supply is obtained principally from wells and supplemented by Improvement District No. 4 (I.D. 4)-treated State Water Project surface water supply. The balance of the incorporated city is principally served by the City of Bakersfield's Ashe Water Company, with supplies obtained from wells. The city also operates the 2,800 acre spreading area providing groundwater recharge for Kern River flows utilizing both its own water rights and agreements with other water agencies for "banking" their waters in the underground aquifer.

The Oildale portion of the study area is served by the North of the River Municipal Water District (NORMWD) and the Oildale Mutual Water Company. NORMWD contracts for I.D. 4 water, retailing such water to Oildale Mutual and to its own customers, and utilizes wells; Oildale Mutual has its own wells and contracts for I.D. 4 water with NORMWD.

A large unincorporated area in east Bakersfield is serviced by the East Niles Community Services District from well supplies and I.D. 4's treated State Water Project surface water supply. No water distribution or water service area exists easterly of the East Niles and California Water Service Company areas until the westerly boundary of Olcese Water District is reached. This will change upon completion of the water facility in northeast Bakersfield scheduled to be constructed by 2003.

The area north of the Kern River and west of Highway 99 is served by numerous water districts and companies. Some water quality problems have been experienced by those entities which draw their principal supply from shallow aquifers in the area (the water supply for the entire area is groundwater based). A portion of the recent city annexation in the area north of the river will be served by the city's Ashe Water Company using either local deep-well supplied groundwater, well water from south of the river, or a combination of both supply sources. California Water Service Company will serve the area east of Coffee Road in the city. Urban water service in the Lamont area, in the southeast corner of the study area, is provided by the Lamont Public Utility District. Water service in the Greenfield area is provided by the Greenfield County Water District.

Improvement District Number Four (I.D. 4) of the Kern County Water Agency was formed to alleviate groundwater overdraft in metropolitan Bakersfield and outlying areas by providing a supplemental surface supply. The district receives most of its water supply from the State Water

Project (SWP), although it exchanges SWP water for Kern River water whenever possible. I.D.4 operates a water treatment plant, with contracts to purify up to 25,000 acre-feet of water annually, and wholesales this treated water to purveyors in lieu of their pumping from groundwater.

The Kern County Water Agency prepared, in 1983, a report projecting municipal and industrial water demands for an area closely corresponding to the study area. That report predicted an increase from present usage of about 100,000 acre feet per year to a year 2010 usage of about 130,000 acre feet per year.

WATER SUPPLY ANALYSIS

Existing engineering studies which address the ability of plan area water supplies to serve General Plan growth, although varying in terms of quantitative forecasts and addressing study areas of differing size, offer data which indicate that existing major water sources and water systems can meet future growth potential in the planning area for the year 2010 with the possible exception of the northeast non-district area. The groundwater recharge programs currently in place and being considered are key components of the overall programs which would assure such adequacy.

POTENTIAL INTERCONNECTION OR CONSOLIDATION OF EXISTING WATER SYSTEMS AND SUPPLIES

The previously-referenced study regarding project costs of an Olcese/I.D. 4 joint project outlines the economic benefits of such interconnection for the groundwater deficient northeast Bakersfield area. The area north of the river and west of Highway 99, has several documented areas of high nitrates, higher-than-desirable total dissolved solids, and trace contaminants in its upper, unconfined aquifers from which local water supplies can be most economically derived. Local, smaller, water companies serve a portion of the urban population in this area. It is possible that, in the long term, consolidation or interconnection of these local water systems with other larger systems may be desirable. On a larger scale, consolidation of the city's Kern River supply and the Kern County Water Agency I.D. 4 supply has potential longer range benefits for the overall planning area.

WATER DISTRIBUTION ISSUES

- Provision of adequate water service to the planning area.
- Coordination of water purveyors and water rights holders.

GOALS AND POLICIES

The following presents the goals and policies for water distribution in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure the provision of adequate water service to all developed and developing portions of the planning area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Reach agreement regarding mutually beneficial improvements in domestic water service and distribution facilities as required to improve overall metropolitan water service capabilities (I-1, I-2).

2. Continue to provide domestic water facilities which are contributed directly by developers, through development and/or availability fees.

3. Require that all new development proposals have an adequate water supply available (I-3, I-4).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Public Services and Facilities Element affecting water. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Utilize the Kern County Water Agency's Urban Bakersfield advisory committee for coordination of planning efforts.

2. Implement the Urban Water Management Plan prepared by I.D. 4 (1985).

3. Review, and modify as required, existing fee structures and ordinances to assure desired system financing and policy implementation.

4. Study alternatives to provide an adequate water supply to the northeastern "non-district" area.

C. SEWER SERVICE

OVERVIEW OF EXISTING CONDITIONS AND ISSUES

EXISTING SERVICES

The study area is served by five major wastewater treatment facilities: the City of Bakersfield's Treatment Plant No. 2, the City's Treatment Plant No. 3, the North of River Sanitary District (NORSD) plant, Mount Vernon/Panorama District plant, and the Lamont Public Utility District plant (located outside plan area boundary). There are several small, temporary treatment facilities in the Rosedale area north of the Kern River and west of NORSD's service area boundaries; much of that area is developed using on-site septic tanks, as is a portion of the northeast (Rio Bravo) area of the city. Some of the developed Rio Bravo area is sewered to community-level septic systems. Metropolitan area wastewater treatment plant locations are shown on Figure X-1.

Additional major trunk sewers will be required to serve the urban growth projected in this plan. It may be desirable, depending upon the timing with which growth actually occurs within the planning area, to consider the siting and construction of a new city treatment plant at a site west of Plant 3. The most desirable location of such a site, if required, can only be determined after actual growth patterns relative to trunk sewer system and Plant 3 become evident.

Several sanitary districts maintain or contract for maintenance of sewer collection systems in the unincorporated metropolitan area, discharging their sewage to the city's wastewater treatment and disposal facilities.

Urban growth in the northern, industrializing areas of Oildale is dependent upon NORSD plant expansion. Community growth to the southwest and south will not be constrained by sewage disposal assuming continued, appropriately timed, expansion of city wastewater treatment facilities.

Continued urban growth to the northeast will be dependent upon solutions to provide sewers either directly to Plant No. 2 or through the East Niles system.

SEWER SERVICE ISSUES

The provision of adequate wastewater collection, treatment and disposal for the planning area is essential to protect the health of residents, permit planned urban densities, and protect the groundwater resource. The issues identified with respect to this vital infrastructure component are:

- The planning area is served, or potentially served, by several wastewater agencies with differing plans for service area expansion.

- Existing urban development in the planning area is served by on-site systems creating potential health and groundwater pollution problems.

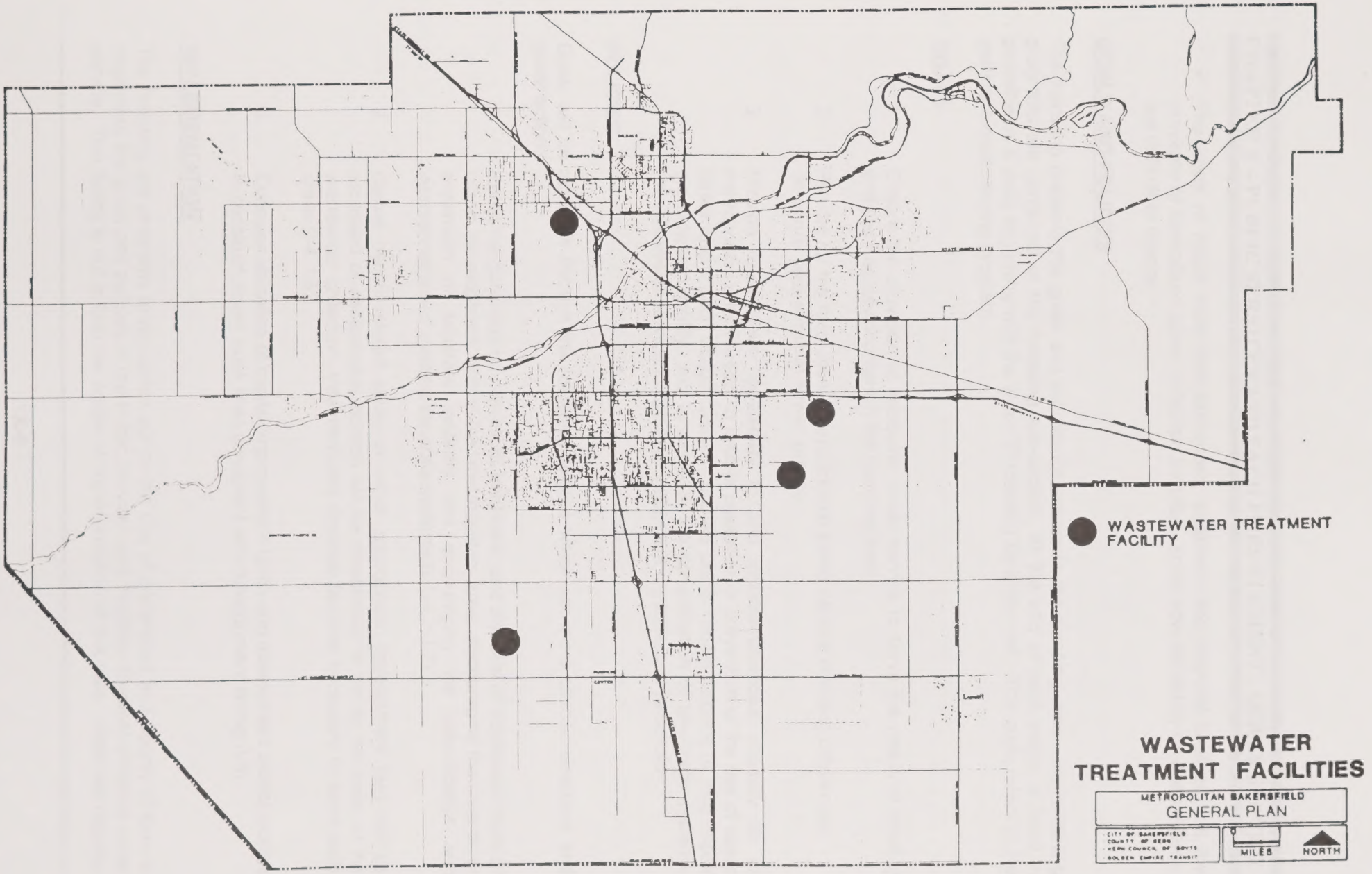
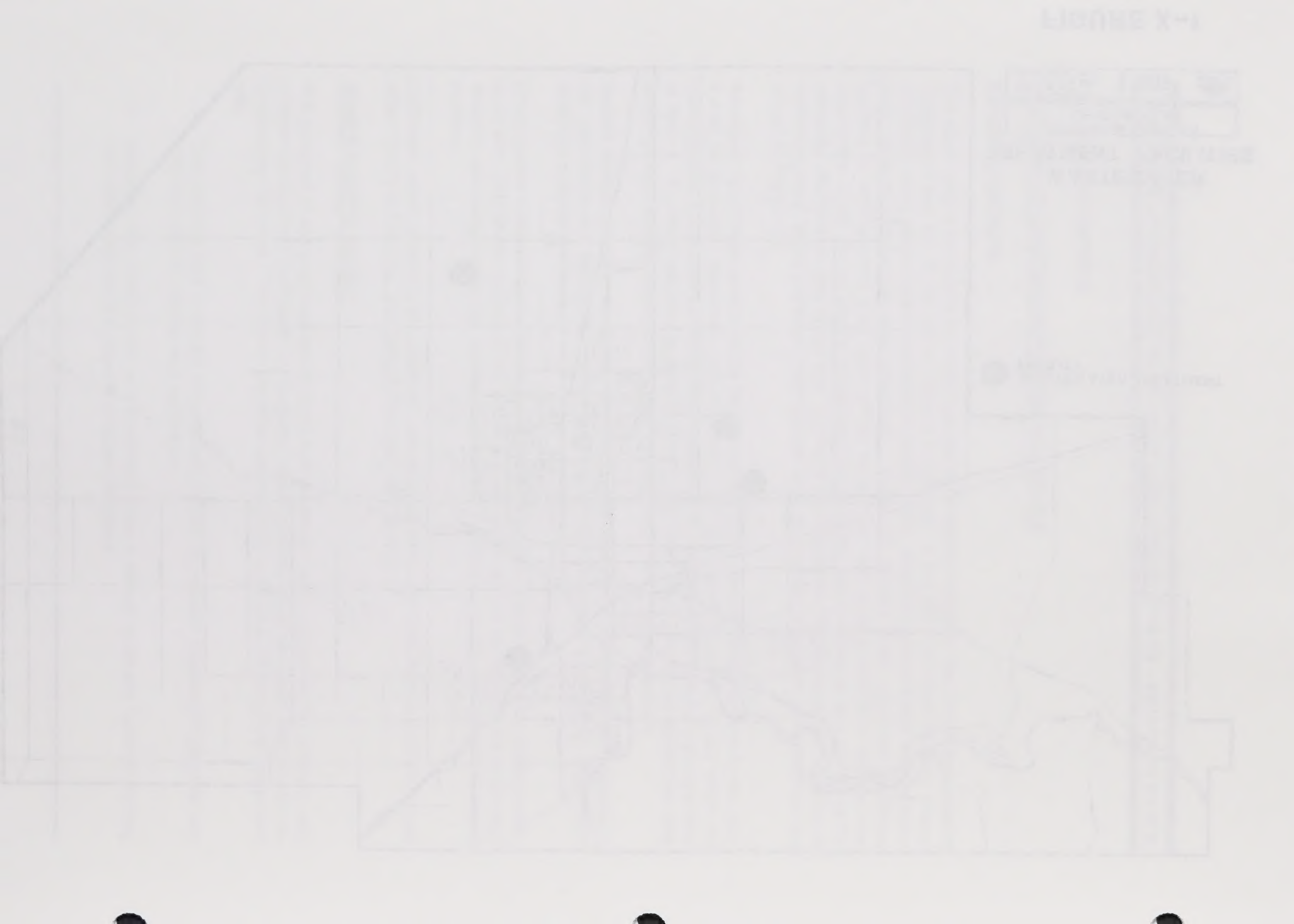

WASTEWATER TREATMENT FACILITY
WASTEWATER TREATMENT FACILITIES
METROPOLITAN BAKERSFIELD
GENERAL PLAN
CITY OF BAKERSFIELD
COUNTY OF KERN
KERN COUNCIL OF GOVTS
GOLDEN EMPIRE TRANSIT
MILES
NORTH

FIGURE X-1



- The costs of major trunk line extensions, treatment and disposal facilities and the provision of centralized sewer collection for urban areas now served by on-site systems, are difficult to finance.

GOALS AND POLICIES

The following presents the goals and policies for sewers in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure the provision of adequate sewer service to serve the needs of existing and planned development in the planning area.

2. Provide for the resolution of jurisdictional sewer service planning differences to permit cost-effective sewer service.

3. Provide trunk sewer availability to and treatment/disposal capacity for all metropolitan urban areas, to enable cessation or prevention of the use of septic tanks where such usage creates potential public health hazards or may impair groundwater quality, and to assist in the consolidation of sewerage systems. Provide sewer service for urban development regardless of jurisdiction.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions

1. Effect the consolidated collection, treatment, and disposal of wastewater from all urban development within the metropolitan area, discouraging the creation or expansion of separate systems and encouraging the consolidation and interconnection of existing separate systems (I-1, I-2, I-3).

2. Define benefit-related areas in which appropriate development fees will be assessed or assessment districts will be established to defray the costs of the wastewater collection, treatment and disposal facilities necessary to serve such areas (I-4, I-5).

3. Consider utilization of capital improvement funds and assessment district monies to construct sewer trunk lines consistent with development timing (I-5).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Public Services and Facilities Element affecting sewer service. This listing is not to limit the scope of implementation of this plan. State law requires

that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Achieve agreement between the city, county, and the special districts providing sewer service to the planning area regarding consolidated or better coordinated wastewater facilities and services.

2. Undertake periodic revision of overall wastewater collection, treatment, and disposal needs for the planning area as growth projections and trends dictate such revision.

3. Locate all centralized wastewater treatment and disposal facilities in accord with the siting criteria of the appropriate regulatory agencies.

4. Define and select at city, county, and special district staff levels, for legislative body adoption, uniform policies and procedures for development fees and assessment district usage to assist in wastewater facilities financing.

5. Require all new urban development to be serviced by centralized wastewater collection, treatment and disposal facilities except:

   (a) Residential development of one-acre parcels or larger.

6. Exclusive of County Service Area No. 71, developer shall be required to install dry sewer lines in streets and connections thereto for parcels less than one acre (net) in size in areas where a centralized sewer system is planned and imminent and where on-site systems can be proven to be temporarily satisfactory.

   Within County Service Area No. 71, all proposals of development at a density greater than one dwelling unit per three gross acres, as well as all commercial and industrial developments, shall be required to be served by a regional sewage collection and treatment system subject to the following provisions:

   (a) All new development (commercial, industrial, and residential, at densities greater than one dwelling unit per three gross acres), including both discretionary and ministerial projects, shall be required to connect to public sewer when said development is located 1,000 feet or closer to available public sewer.

   If public sewer is more than 1,000 feet from development, a dry sewer system, in conjunction with approved individual septic systems, may be utilized for lots having an area of 10,000 square feet or larger.

   Dry sewer systems are not required for lots of three gross acres or larger. Single residential lots that require a ministerial permit shall connect to public sewer when located 200 feet or closer to available public sewer. Single residential lots less than three gross acres that are greater than

200 feet from available public sewer are required to install dry sewer in accordance with the requirements of the Kern County Engineering and Survey Services Department.

(b) All new development (commercial, industrial, and residential, at densities greater than one dwelling unit per three gross acres), including both discretionary and ministerial projects, shall pay a sewer development fee where the Board of Supervisors has adopted a planned sewer area and install dry sewer within the project development when located in excess of 1,000 feet from public sewer or where sewer service is not available as determined by the Kern County Engineering and Survey Services Department. The fee amount shall be based on the property's pro rata share of the conveyance, facility, and capacity costs. Single residential lots that are greater than 200 feet from available public sewer are required to install dry sewer in accordance with the requirements of the Kern County Engineering and Survey Services Department.

(c) In those cases where sewer service will not be available as determined by the Sewer Master Plan, an exemption may be granted by the Kern County Engineering and Survey Services Department.

(d) All new development (commercial, industrial, and residential, at densities greater than one dwelling unit per three gross acres) shall be required to annex to an existing County Service Area (CSA) or form a new CSA if none is already in place. In conjunction with formation of, or annexation to, a CSA, applicants shall be required to form a Zone of Benefit for the purpose of constructing and maintaining a sewer trunk line.

7. The Kern County Environmental Health Services Department and the Kern County Waste Management Department shall develop wastewater transport and treatment facilities master plan(s).

D. STORM DRAINAGE

OVERVIEW OF EXISTING CONDITIONS

Storm drainage policies for the city's and for the county's urbanizing areas have reflected recognition of the limited annual rainfall and the relatively flat topography on which most of the study area's development has occurred. Both the city and the county adopted several "planned drainage areas" for which master storm drain system plans have been developed and in which area-specific, benefit-related development fees are charged to fund construction of major drainage facilities.

It is worth noting that one effect of the county's requirement that storm flows be kept on-site is the creation of a myriad of small drainage basins. The planned drainage district concept, encouraging larger, area-wide drainage facilities, tends to mitigate maintenance problems associated with the proliferation of smaller drainage basins.

City and county policies and design standards regarding storm drainage for newly developing areas are not greatly at variance with one another. The primary difference between the city and county philosophies relates to provisions for on-site retention (sumps) of storm water generated by developing properties.

Kern County typically requires developing sites to provide for their own on-site retention or show that existing facilities have sufficient capacity to carry the additional runoff. This policy extends even to individual, newly created single-family residential lots. If it can be clearly demonstrated that adequate downstream facilities exist, the county will sometimes lessen their full retention requirement to detention facilities so that the peak off-site runoff is not increased. One significant impact of this county policy is the proliferation of isolated drainage basins.

The city tends to accept on-site runoff into its system as long as adequate downstream facilities are in place. On large planned developments where off-site drainage facilities are not available and on-site retention will be required, the city attempts to strategically locate sumps so that they can be incorporated into future development. Proliferation of multiple isolated basins is discouraged.

There is currently no quantitative data regarding dry-weather nuisance water flows in the storm drainage systems serving various sections of the Bakersfield metropolitan area. Such flows are significant in some areas, which may restrict the joint usage of drainage basins as recreational areas. There is no known data on the subject of dry weather nuisance flows.

STORM DRAINAGE ISSUES

The provision of adequate storm drainage facilities for the planning area is essential to the safety and welfare of area residents, and necessary for the development of the area in accord with the General Plan. However, the provision of adequate storm drainage facilities for both currently developed portions of the planning area and for planning area development in accord with the General Plan is both increasingly costly and difficult because of the generally flat topography of much of the area and the limited number of available storm drainage disposal points.

GOALS AND POLICIES

The following presents the goals and policies for storm drainage in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure the provision of adequate storm drainage facilities to protect planning area residents from flooding resulting from storm water excess.

2. Maintain a comprehensive storm drainage system which serves all urban development within the planning area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Develop drainage programs which will serve all currently developed portions of the planning area that are not now served by adequate storm drainage systems (I-1, I-2, I-3).

2. The city and county should pursue individual drainage plans where they are most needed (I-2, I-3, I-4).

3. Investigate the preparation of a Master Drainage Plan based on the proposed growth in the planning area (I-5).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Public Services and Facilities Element affecting storm drainage. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Utilize assessment districts or public improvement districts to defray or finance costs of needed storm drainage facilities for already-developed areas.

2. Establish, for areas where development is planned, city or county "planned drainage areas" to finance and construct storm drainage facilities.

3. Develop standards for engineering and construction of drainage facilities common to both city and county. Adopt these common standards, and provide for periodic review and revision.

4. Use drainage area retention basins for drainage disposal when direct discharge to a waterway is not available. Combine storm drainage usage with recreational usage when feasible. Incorporate in such basins recessed areas for off-season retention of nuisance flows.

   Maintain all basins with the primary purpose of drainage disposal, with recreational usage as a secondary objective.

5. Investigate development of a Master Drainage Plan for the plan area based on the proposed growth. The master plan would serve as a layout for future storm drainage facilities providing storm drainage control services.

E. STREET LIGHTING

OVERVIEW OF EXISTING CONDITIONS

EXISTING SERVICES

Street lighting is provided in nearly all developed areas of the city Lighting which is not provided by the city is provided either by other governmental agencies or private ownership. As an example of the former, Caltrans provides lighting along state highways, freeways, and associated facilities. Other agencies,such as school districts and airport districts, provide lighting for their facilities.

Lighting in the plan area outside of the incorporated city is similarly provided, with the county being the principal operating agency instead of the city. The county provides these services through 52 County Service Areas (CSAs) and two Public Utility Districts. The CSAs range in size from a few blocks, with 12 lights, to areas of several square miles with hundreds of street lights.

Lighting in the plan area which is privately owned includes subdivisions, mobile home parks, and private businesses with the provider being a homeowners association, landlord, or business. Privately owned lighting represents a small fraction of the lighting within the study area.

City policy requires street lights at intersections, and at midblock where blocks are greater than 600 feet in length, with the exception of some industrial areas in which street lights are required only at intersections.

Most street lights in the city and almost all street lights in the county are provided under PG&E's LS-1A or LS-1C rates. In the former, PG&E installs, owns and maintains the entire street light. In the latter the pole and support arm are installed and owned by the city with PG&E maintaining it.

In new developments the city itself does not install street lights. Rather, the city requires developers to install lights and dedicate them to the city. Lights are often required for newly annexed areas or if an additional street light is warranted in an existing developed area of the city. In these circumstances, the city authorizes PG&E to install the light under the LS-1A schedule. Within the county, all street lights are provided under the LS-1A schedule.

The city has adopted standards for street lights. The county, while requiring street lighting for all Type A subdivisions has no adopted standards.

STREET LIGHTING ISSUES

Adequate lighting of public streets and grounds is a deterrent to crime and assists in accident prevention. The following issues have been identified with respect to public lighting in the planning area:

- All new development in the planning area does not install lighting in accord with the same spacing and equipment standards.
- Lighting costs currently represent a significant burden on local agency budgets when financed from general funds.
- All presently developed portions of the planning area do not have adequate public lighting.
- Public grounds are not adequately lighted.

GOALS AND POLICIES

The following presents the goals and policies for street lighting in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide uniform and adequate public lighting for all developed and developing portions of the planning area.
2. Develop uniform planning area street light location and design standards.
3. Establish a benefit-related financing mechanism for all planning area public lighting to minimize lighting costs.
4. Develop financing mechanisms which will permit the installation of public lighting in developed portions of the planning area not adequately lit at present.
5. Provide for adequate lighting on public grounds where night use is encouraged.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Achieve consistency between current city standards and county policies for lighting in new development (I-1).
2. Utilize existing state law-based assessment procedures in a uniform manner for public lighting financing (I-4).
3. Complete the conversion of all planning area lighting to energy efficient lighting (I-2, I-5).

4. Require developers to install street lighting in all new developments in accord with adopted city standards and county policies (I-2).

5. Finance and develop appropriate design standards for, and installation of, public grounds lighting in accord with this policy (I-5, I-6, I-7).

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Public Services and Facilities Element affecting street lighting. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Develop, at city and county staff levels, mutually agreed upon standards for lighting location design, and development-related installation, for legislative body approvals. Such standards shall include the provision of standardized, modern, lights at all intersections and in mid-block where blocks exceed 600 feet in length.

2. Utilize existing ordinance authority, or adopt and enforce new ordinances, to require developer installation of standard design street lighting in all new development. Non-standard street lighting may be permitted to enhance the neighborhood character of an area or uniqueness of a site providing such lighting exhibits low-operating costs, is energy efficient, and provides adequate light.

3. Continuously evaluate, at staff level, the most cost-effective selection of public agency/utility street lighting ownership and maintenance.

4. Use the Landscaping and Lighting Act of 1972, or similar legislative authority, for street lighting financing in the planning area, adopting consistent area-wide assessment formulas.

5. Request serving utility companies to complete conversion to low maintenance, low cost, and energy efficient lighting for utility-owned facilities and direct the conversion of all remaining publicly owned facilities in the planning area.

6. Use the Landscaping and Lighting Act of 1972, or similar legislative authority, to authorize the installation and subsequent operations financing of adequate lighting in all developed areas not now so lighted, after required public hearings.

7. Develop, at city and county staff level, mutually agreed upon standards for public grounds lighting. Finance the installation of such lighting on publicly-accessible city and county grounds from general funds or lighting maintenance districts; request similar installations and financing of all other public agencies with publicly-accessible grounds in the planning area.

F. SOLID WASTE

OVERVIEW OF EXISTING CONDITIONS

EXISTING SERVICES

Solid waste collection services (residential and commercial) are provided within the city by the City Sanitation Division and contracted private haulers and in the unincorporated area by a county franchise hauler. All solid waste generated in the area is disposed of in county-operated landfills.

The Bena Landfill is the primary landfill serving the General Plan area. The "Bena" landfill is located approximately 18 miles east of Bakersfield and has a projected 65-75 year lifespan with a capacity of 70 million cubic yards.

The future Metropolitan Bakersfield Transfer Station at South Mt. Vernon Avenue would be designed and located to enhance recycling opportunities and to decrease illegal dumping. The site currently contains a wood waste recycling facility.

SOLID WASTE ISSUES

Adequate solid waste disposal is vital to the health of residents of the planning area. The following issues have been identified with respect to solid waste disposal:

- Resource recovery, in conjunction with landfill usage, is required by state and federal government agencies.
- The "Bena" landfill has adequate capacity to serve the needs of the planning area.
- Siiting of the Bakersfield Metropolitan Transfer Station.

GOALS AND POLICIES

The following presents the goals and policies for solid waste disposal in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Ensure the provision of adequate solid waste disposal services to meet the demand for these services in the planning area.
2. Evaluate, and develop as feasible, resource recovery and recycling systems.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Comply with, and update as required, the adopted county solid waste management plan (I-1, I-2, I-3, I-4).

2 A designated site for solid waste disposal or large transfer station facilities (Solid Waste Facility Sites: P-SW) shall be protected from encroachment of incompatible land uses and intensive urban development. General Plan map code designations which may be compatible for properties adjacent to or near solid waste facilities include the following: Public Facilities; Light Industrial; Service Industrial; Heavy Industrial; Intensive Agriculture; Extensive Agriculture; Mineral and Petroleum.

Other land use map code designations may be compatible subject to project-specific CEQA evaluation. Intensive residential uses, community care facilities, schools, hospitals, recreational vehicle parks and other uses involving sensitive populations, concentrations of people and other activities will usually be incompatible adjacent to or near solid waste facilities.

When considering a land use application next to a designated solid waste facility site, the following issues will be considered through the CEQA process when determining compatibility;

1. Land use compatibility based on the character and intensity of use;
2. Potential for groundwater contamination;
3. Potential for methane gas migration;
4. Operational effects of the solid waste facility to the proposed land use application including traffic, odor, noise, vectors, and dust; and
5. Other issues relevant to the specific proposal and as determined through the environmental and public hearing review process.

Risk Assessment analysis prepared by the land use project applicants may be warranted when considering proposals for General Plan Amendments, zone changes, conditional use permits, and subdivision tracts adjacent or near to designated solid waste facilities.

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Public Services and Facilities Element affecting solid waste. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Implement the "Kern County Solid Waste Management Plan-1988", and subsequent updates which will make the Metropolitan Bakersfield Municipal landfill at Bena available to the General Plan area.

2. Site and construct Bakersfield metropolitan transfer stations with appropriate land use buffers where appropriate.

3. Evaluate the feasibility of recovering methane gas from non-operational public landfill sites.

4. Undertake, as economically feasible, materials recycling programs and the construction of resource recovery facilities, utilizing private/public partnerships when possible.

5. Soil remediation and tire recycling operations do not require a Solid Waste Facilities designation (Map Code P-SW) where there is no on-site disposal, no hazardous materials received onsite, and the processing operations will produce a marketable product or products. Such operations should not be located within ½ mile from any property designated for residential use and shall not be located within ½ mile of any school or hospital facility. The composting of green waste also does not require a Solid Waste Facilities designation; however, the composting of sewage sludge or animal waste shall require a Solid Waste Facilities designation. All necessary permits from the Kern County Environmental Health Services Department, Kern County Waste Management Department, State of California Integrated Waste Management Board, State of California Regional Water Quality Control Board, the Air Pollution Control District, and all other responsible agencies shall be obtained prior to the commencement of operations.

CHAPTER XI – PARKS ELEMENT

STATUTORY REQUIREMENTS

The Parks Element is an optional element of the General Plan in accordance with California Government Code Section 65303. Cities and counties often prepare them due to the concerns of providing sufficient park land for residents, establishing a relationship between park space and the city's entire open space resource, and development.

The Parks Element sets policies and minimum standards for the amount and quality of land devoted to parks. Park land is generally defined as any usable area of land or water designated on state, regional or local open space plans as open space or park land and is actively used for park and/or leisure recreational purposes with or without charge.

OVERVIEW OF EXISTING CONDITIONS

Parks are generally categorized as either local or regional. Local parks generally range from 1-2.5 acres (mini-parks), to 5-10 acres (neighborhood parks), and approximately 30 acres (community parks). Local parks generally serve a population within a three-quarter mile radius. Regional parks, on the other hand, can range anywhere from 20 to 1,000 acres and serve a population living within one hour's distance. The Park Classifications and Standards section discusses specific policies which establish minimum acreage requirements, utilization, and typical development improvements.

Historically, park facilities within the planning area have been supplied by the City of Bakersfield, the County of Kern, the North Bakersfield Recreation and Park District, Bear Mountain Recreation and Park District, school districts, colleges, and, most recently, private developers. The provision of regional parks has been primarily the responsibility of the County of Kern.

Figure XI-1 shows the location of all public parks in the planning area, including local and regional parks. Figure XI-1 provides an inventory of acreages and facilities at all of these locations.

PARK RESOURCES

1. Local Parks

The City of Bakersfield Geographic Information System shows the current park service level at 1.88 acre per 1,000 population. This assumed the projected Year 2001 population for the metropolitan area of 402,100 people.

The following table shows the current park acreage/population ratio.

Local Park Type	Metropolitan Area	National Standard
Mini-parks	.0663 ac/1,000	.25-.5 ac/1,000
Neighborhood Parks	1.88 ac/1,000	1-2 ac/1,000
Community Parks	4.94 ac/1,000	5-8 ac/1,000

2. Community Park Centers

A community park center is defined as an outdoor and indoor recreational facility providing large spaces for a wide range of organized community meeting and sports activities. The national standard for community parks and/or centers is 1 per 25,000 population. With an estimated 2001 population of 402,100, the planning area contains three recreational centers (totaling 81.35 acres), Martin Luther King, Jr. Community Center, Silver Creek Recreation Center and Riverview Community Center. Smaller meeting room facilities do, however, exist at Greenacres, Heritage, Belle Terrace, Rexland and Sears Parks.

3. Regional Parks

The planning area's two regional parks, Kern River County Park and the Metro Recreation Center, provide a combined 1,119 acres of regional recreation space. This represents a ratio of about 4.7 acres per thousand population. Other regional parks located outside the planning area, including Buena Vista Aquatic Recreation Area and Tehachapi Mountain Park also serve planning area residents.

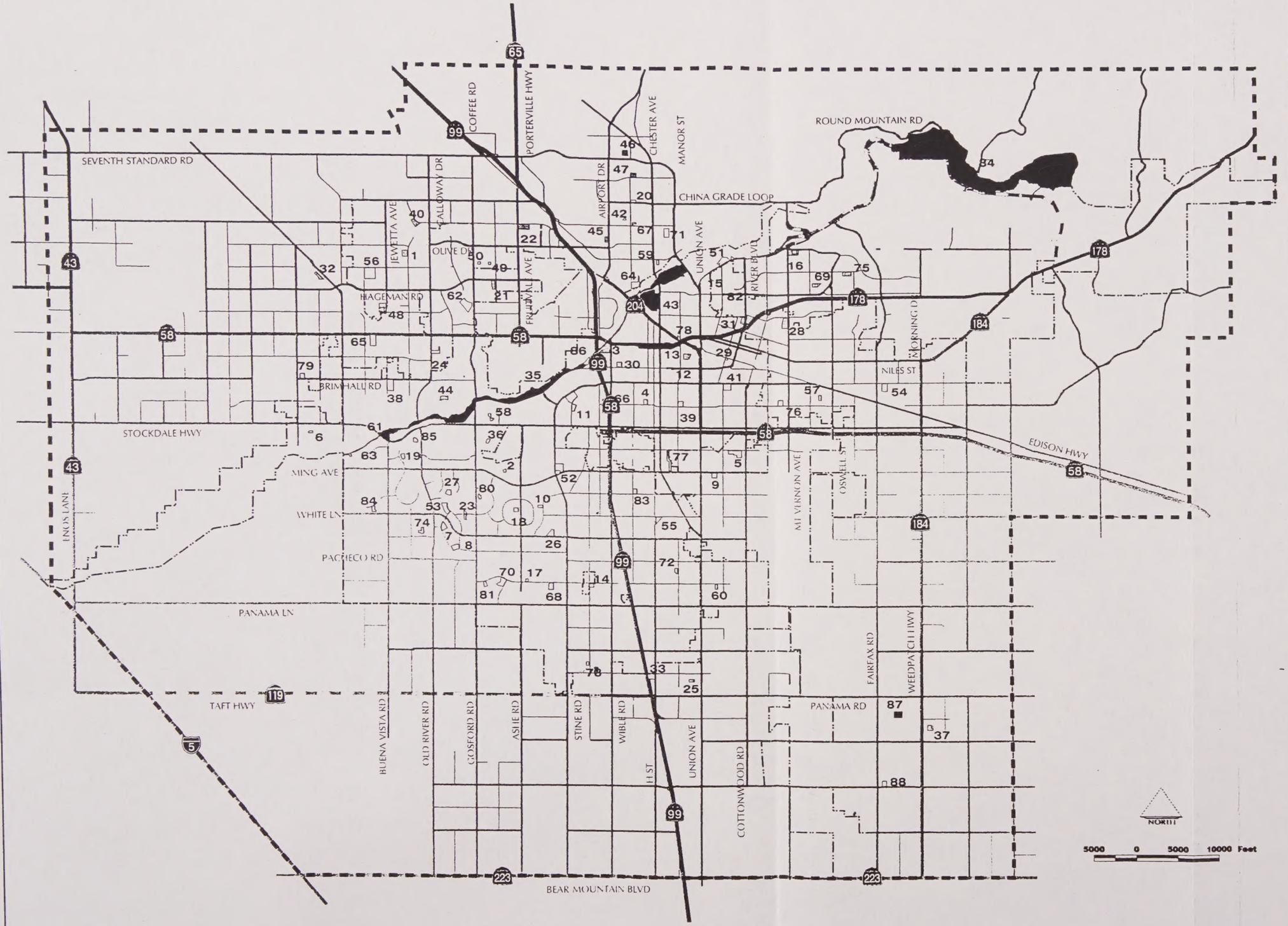
PARK CLASSIFICATIONS AND STANDARDS

Development under the following park classifications and standards would address spatial and topographical requirements, land availability, types of improvements, service area, funding and maintenance costs. Local parks are to be developed at a minimum rate of 2.5 usable acres per 1,000 population. "Usable" means area that people can use with an emphasis on active and group use. It includes essentially flat land that can be developed for facilities and activity areas. It is not land in very steep slope, land with unusually poor soil conditions not suited for park development, land areas subject to periodic flooding, land with unique habitat worthy of preservation or water bodies unsuitable of park recreation uses or areas impacted adversely by adjacent or nearby land uses.

1. Mini-Parks

Mini-parks function as small neighborhood parks in residentially developed areas where neighborhood standards are not met and where acquisition of sufficient acreage for standard neighborhood facilities is prohibitive. The minimum size standard for public mini-parks is 2.5 usable acres. Mini-parks may also be located in areas to serve commercial uses.

Development improvements of mini-parks would typically consist of playground or tot lot area and equipment, picnic tables, barbecues, fountain, landscaping and security lighting.



LEGEND

Number	Name	Acreage
1	Almondale Park	11.34
2	Amberton Park	2.69
3	Beach Park	26.47
4	Beale Park	6.98
5	Belle Terrace Park	20.71
6	Bill Park Greens	2.69
7	Campus Park North	11.07
8	Campus Park South	12.12
9	Casa Loma Park	9.72
10	Castle Park	3.78
11	Centennial Park	8.96
12	Centennial Plaza	0.63
13	Central Park	11.41
14	Challenger Park	5.62
15	Circle Park	0.12
16	College Park	13.88
17	Coral Keys Park	2.25
18	Corvallis Park	5.54
19	Deer Park	6.04
20	District Office	4.01
21	Emerald Cove Park	9.78
22	Fruitvale/Norris Park	17.04
23	Garden Park	5.85
24	Green Acres Park	10.41
25	Greenfield Park	4.87
26	Grissom Park	11.34
27	Haggin Oaks Park	8.87
28	Heritage Park	19.36
29	International Square	1.32
30	Jastro Park	8.71
31	Jefferson Park	8.90
32	Jenkins & Hageman Park	8.91
33	Kern Delta Park	12.09
34	Kern River County Park	1335.77
35	Kern River Parkway	580.14
36	Kroll Park	4.24
37	Lamont Park	7.83
38	Liberty Park	21.71
39	Lowell Park	10.17
40	Madison Grove Park	11.02
41	Martin Luther Kink Jr Par	14.94
42	Mc Cray Park	1.78
43	Metro Recreation Center	96.64
44	Mondavi Park	9.13
45	North Beardsley Park	6.58
46	North Highland Park	9.58
47	North Meadows Park	8.03
48	North Rosedale Park	12.70
49	Olive Park East	2.53
50	Olive Park West	2.51
51	Panorama Park	24.98
52	Patriots Park	20.02
53	Pin Oak Park	16.81
54	Pioneer Park	14.05
55	Planz Park	8.25
56	Polo Community Park	38.28
57	Potomac Park	4.34
58	Quailwood Park	6.07
59	Rasmussen Senior Center	3.67
60	Rexland Acres Park	4.44
61	Rio Vista Park	31.31
62	River Lakes Ranch Park	28.57
63	River Oaks Park	12.36
64	Riverview Park	17.59
65	Rosedale Park	19.60
66	Saunders Park	8.92
67	Sears Park	2.05
68	Seasons Park	9.78
69	Seimon Park	8.20
70	Silver Creek Park	14.44
71	Standard Park	15.37
72	Steiim Park	5.12
73	Stonecreek Park	3.32
74	Tevis Park	7.50
75	University Park	10.76
76	Virginia Avenue Park	9.47
77	Wayside Park	13.02
78	Weill Park	2.71
79	Westdale Park	8.11
80	Westwold Park	3.90
81	Wilderness Park	4.87
82	Wilkins Park	2.88
83	Wilson Park	6.75
84	Windermere Park	5.87
85	Windsor Park	6.01
86	Yokuts Park	18.94
87	Bear Mountain Park	16.0
88	Weedpatch Park	8.0

Total = 2871.09

City of Bakersfield City Limits - As of 6/4/02

Metropolitan Bakersfield Boundary Line

Source: GIS Data, City of Bakersfield

Metropolitan Bakersfield Parks

JN: 10100548
June 18, 2002

FIGURE XI-1

2. Neighborhood Parks

Neighborhood parks provide both active and passive recreational activities for surrounding residential development. The minimum site size standard for neighborhood parks is 10.0 usable acres. The location should provide adequate street frontage, parking and good accessibility. The service area covers the neighborhoods within three-quarters (3/4) of a mile of the park site. Development improvements include a variety of facilities including single and/or group areas, barbecues, fountains, playground area and equipment, tennis and/or game courts, open turf area, landscaping, parking and security lighting, restroom facilities, parking lots and picnic areas.

3. Community Park Centers

Community park centers provide a wide range of recreational opportunities, facilities and equipment servicing the population comprised of several neighborhood units. The park would typically have a service area of a 3 to 5 mile walking radius. Joint development and/or use with schools should be recommended. The minimum size standard for community parks is 20 usable acres. These parks may contain specialized facilities not found in other parks. Typical development includes indoor recreation facilities, group picnic areas, barbecues, fountains, playgrounds and equipment, tennis and game courts, softball diamonds with lighting and/or other athletic fields, swimming pool, landscaping, parking, security lighting and restrooms.

4. Regional Parks

Regional parks serve the population of a large region - usually within an hour travel time. The responsibility for these parks generally rest with a county, regional authority or state. Regional parks may range in size from 20 acres to 1,000 acres or more. Features typically found in regional parks include campgrounds, picnic areas, nature study areas and trail systems. In addition, a few of these parks may have scenic vistas, gardens, a golf course, sports fields, water features or be related to items of historical significance or special interest.

SIGNIFICANT ISSUES SUMMARY

Significant issues regarding the planning area's parks and recreation resources are as follows:

- In comparison to National Recreation and Park Association standards, there is a shortage of local parks in the planning area,
- The planning area's image stands to benefit from greater attention to the design of parks and recreational facilities as well as from efforts to relate recreational facilities to the area's natural resources.
- Due to limited tax revenues, it has become increasingly difficult for local governments to provide local parks and recreational facilities.

- Inter-jurisdictional coordination should be improved in the provision of park and recreational services so that it results in more consistent standards and less duplication of effort.

- Some parks are supported by maintenance districts while others are supported by the general fund.

GOALS AND POLICIES

The following presents the goals and policies for parks in the planning area. Implementing programs are contained in the following sub-section. At the end of each policy is listed in parenthesis a code beginning with the letter "I" followed by a number. This code refers to the pertinent implementing program.

GOALS

1. Provide parks and recreation facilities to meet the planning area's diverse needs.

2. Supply neighborhood parks at a minimum of 2.5 acres per 1,000 persons throughout the plan area.

3. Provide four acres of park and recreation space for each 1,000 persons (based on the most recent census) for general regional recreation opportunity as a minimum standard. Park and recreational space includes mini-parks, neighborhood parks, community parks and regional parks.

4. Provide a diversity of programs and facilities to meet the needs of the full range of citizen groups including the elderly, handicapped, and economically disadvantaged.

5. Coordinate development of park facilities and trail systems throughout the plan area which enhance the centers concept and complement unique visual or natural resources.

6. Ensure that all park and recreation facilities are adequately designed, landscaped, and maintained.

7. Require that the costs of park and recreation facilities and programs are borne by those who benefit from and contribute to additional demand.

8. Provide safety, accessibility, and compatibility between parks and adjacent residential areas through "good neighbor" park practices.

9. Coordinate efforts by volunteer agencies, civic organizations, private enterprise and all government entities to assure the provision of a complete range of recreation opportunities for all residents of the planning area.

POLICIES

Goals will be achieved through the following policies which set more specific directions and guide actions.

1. Require that neighborhood parks be developed at a minimum rate of 2.5 acres per 1,000 population. This requirement may be met all or in part by on-site recreation for such developments as Planned Unit Developments. The City of Bakersfield may allow credit to meet the neighborhood parks requirement.

2. Allow the formation of special park districts which provide higher park standards than the minimum stated in Policy 1 (I-1).

3. Require developers to dedicate land, provide improvements and/or in-lieu fees to serve the needs of the population in newly developing areas (I-1).

4. Require developers of new subdivisions to show and adhere to park locations (depicted on the Land Use Element). Park locations identified in master plans approved prior to adoption of this general plan are reflected in this plan. Variations may be allowed based on certain constraints. See Policy 6 (I-9).

5. Establish as a target that mini-parks and neighborhood parks within the City of Bakersfield jurisdiction be situated within three-quarters of a mile of residents they are intended to serve (I-9).

6. Provide additional neighborhood and community parks and recreation acreage in areas substantially developed or in the process of redevelopment or improvement, using a combination of public funds, in lieu developers fees, and benefit assessment districts (I-1).

7. Provide mini-parks in developed residential areas where neighborhood standards are not met and where it is impossible to acquire sufficient acreage for neighborhood facilities. Use the same funding mechanisms indicated in Policy 6 (I-1).

8. Require the following minimum site size standards in planning and acquiring of local parks and playgrounds:

   Mini parks (public) - 2.5 usable acres
   Neighborhood parks/playgrounds - 10.0 usable acres
   Community park/playfield - 20.0 usable acres

   These acreages are intended as guides for City and County improvements. Variations may be allowed based on constraints, such as, land availability, natural obstacles, financing, funding and maintenance costs. The above acreage figures apply to usable acreage. Usable means an area that people can use with an emphasis on active and

group use. It is essentially flat land that can be developed for facilities and activity areas. It is not land steeper than 4 feet horizontal and 1 foot vertical in slope, land with unusually poor soil conditions, land subject to flood water stagnation, land with riparian or otherwise unique habitat worthy of preservation or water bodies or areas impacted adversely by adjacent or nearby land uses (I-9).

9. Allow neighborhood park requirements to be met by community parks when community parks are situated within or at the boundaries of neighborhoods and when they provide equivalent facilities (I-9).

10. Encourage schools to make playgrounds and playfields available to local residents after normal school hours and on weekends (I-7).

11. Evaluate the feasibility of using publicly-owned lands and utility rights-of-way as recreational facilities (I-10).

12. Encourage development and maintenance of regional parks and recreational facilities through the cooperation of the City of Bakersfield, the County of Kern, the North Bakersfield Recreation and Park District and the Bear Mountain Recreation District (I-8).

13. Evaluate the feasibility of including new regional parks as a component of proposed groundwater recharge areas (I-10).

14. Plan for and expand regional recreation opportunity in connection with the development and conservation of appropriate areas along the Kern River (I-4, I-8).

15. Designate multiple purpose areas for recreation and park use within the Kern River Plan area and in accordance with the goals and policies in the Kern River Plan Element (I-4).

16. Accommodate social, cultural and ethnic needs in the design and programming of recreational spaces and facilities (I-2).

17. Attempt to locate parks and design facilities to meet the needs of all population segments including children, seniors and the disabled (I-2).

18. Attempt to provide special recreational programs for seniors on fixed incomes, latch-key children, and the economically disadvantaged (I-2).

19. Locate and design local park and recreation areas for access to all age groups where practicable. Provide facilities for both active (play areas and courts) and passive (turf, walk-ways, trees and picnic facilities where possible) recreational activity (I-2).

20. Operate programs at times convenient to the users (I-2).

21. Establish both passive and active park development in local parks to accommodate programmed activities and drop-in use. Some usable area should be held as open turf for free play (I-3).

22. Attempt to provide and promote the use of alternative public funding for the acquisition, development and maintenance of parks and recreational facilities in low and moderate income neighborhoods in which there is a recognized shortage of parks (I-1).

23. Encourage the development of parks adjacent to schools in order to provide a wider range of programs (I-7).

24. Monitor program needs through surveys of neighborhood residents or other participation mechanisms and through periodic reviews of park and recreational needs (I-2).

25. Promote the preservation of existing parks and encourage the development of other facilities near downtown (I-8).

26. Encourage the further development of the City of Bakersfield's specific trails plan (I-11).

27. Encourage pedestrian and bicycle linkages between residential and commercial uses (I-11).

28. Encourage the establishment of equestrian trials where they link residential development to the Kern River in areas of the northeast and northwest where horses are permitted by zoning (I-2, I-11).

29. Design equestrian trails, hiking and bicycling rights-of-way to minimize user conflicts between them (I-2, I-11).

30. Evaluate the feasibility of using utility easements for recreational activity (I-10).

31. Establish a program of design and improvement review, landscape development, and maintenance of parks, city and county building grounds and public works projects, with quality standards established commensurate with intended function and relative impact on surrounding area (I-3).

32. Encourage variety in the design of park facilities to enhance the lifestyle of residents to be served (I-2, I-3).

33. Monitor the parkland dedication ordinance with in-lieu fee provisions (I-1).

34. Encourage coordination in the acquisition, development and use of parks and schools to avoid duplication of facilities and provide economic use of public funds (I-3, I-5).

35. Encourage the development of recreation programs by public agencies and sports organizations to involve more children and adults in outdoor recreation activity. Use volunteers to operate and maintain programs whenever possible (I-2).

36. Monitor the official park acquisition program to meet current and future needs. The program includes direct input for capital budgeting purposes including the scheduling of park dedication. The program is reviewed periodically with respect to changing growth rates and general plan policies (I-1).

37. Establish a formal mechanism by which the city may accept gifts and dedications of parks and open space (I-1).

38. Consider the use of eminent domain where siting of a park is required to serve neighborhood needs for parks and recreation facilities (I-1).

39. Consider the formation of Community Facilities Districts, especially in newly developing areas* (I-1).

40. Consider the use of special taxes** for financing services or facilities (I-1).

41. Provide for the creation of benefit assessment districts for park acquisition, development and maintenance. These districts should conform as closely as possible to benefit service areas (I-1).

42. Encourage a community-wide parks and recreation district to equitably distribute support for the park system (I-1, I-6).

43. Encourage the development of private and commercial recreation facilities under lease or concession agreements where such facilities are consistent with planned development and offer expanded recreation opportunities to the public (I-2).

44. Study the feasibility of a recreation and land management program allowing for the generation of supplemental revenue to offset the cost of necessary further land acquisition, development and operational cost. This could include establishing concessions, rentals user fees and land leases (I-10).

45. Develop lighted playing fields on community park sites (I-3).

46. Permit major traffic generating activities on community park sites only (I-3).

47. Community parks should be located adjacent to or near arterials. Neighborhood parks should be located adjacent to collector or local streets, rather than arterial streets (I-1, I-3). (CC 11/6/91)

48. Situate swimming pools near high schools, wherever possible, and with convenient access to elementary schools (I-3).

49. Design vegetation, earth form and activity areas to buffer noise, light, etc., from adjacent residents (I-3).

50. Allow the physical integration of canals in park areas where design measures can be incorporated to ensure public safety (I-3).

51. Enforce all regulations regarding public safety, littering and drinking in public parks (I-6).

52. Ensure that all park facilities be developed consistent with policies in applicable planning documents and elements of the General Plan (I-8).

53. Coordinate the provision of park facilities with other public services and facilities, especially schools and public roads (I-7, I-8).

54. Coordinate the location, planning, and functional uses of all park and recreational facilities with affected local governmental entities and where feasible, promote joint acquisition and/or development to assure effective coverage of all needs (I-8).

55. Seek out and encourage the provision of volunteer assistance from civic organizations, special interest groups, and individuals to provide program leadership or facility development to augment recreation opportunities (I-2).

56. Periodically evaluate the planning area to evaluate park deficiencies. (I-2)

57. Central Park should be expanded to facilitate the City of Bakersfield in identifying and recognizing its historical heritage, the heart of historic Bakersfield, and to enhance the urban environment of the downtown area. (I-12)

* The Mello-Roos Community Facilities Act of 1982 authorizes local governments to levy special taxes within newly created Community Facilities Districts. The Act also authorizes local governments to issue bonds backed by these special taxes. Funds may be used to pay for capital facilities, including parks. Community Facilities Districts are established by a two-thirds vote of the residents of the proposed district.

** Special taxes are taxes collected and earmarked for a special purpose, such as a particular kind of service or facility, rather than being deposited in the general fund. For capital acquisition, such as parkland, the Mello-Roos Act provides the

most practical way to levy a special tax. Under Proposition 13, the levy of a special tax requires support from two-thirds of the affected voters.

IMPLEMENTATION

The following are programs to be carried out by the City of Bakersfield and County of Kern to implement the goals and policies of the Parks Element. This listing is not to limit the scope of implementation of this plan. State law requires that planning agencies recommend various methods of implementation of the general plan as part of their on-going duties.

1. Establish and implement an official park acquisition program to meet current and future needs. Such a program shall include the following actions:

   a) Establish a mechanism to identify potential park sites.

   b) Identify funding strategies to pay for acquisition of new parks with funds reserved from the following sources.

      - City and County General Funds
      - Tax increment funds (in redevelopment project areas)
      - Developer assessments (through use of Quimby Act or other similar funding mechanisms)
      - Business and fund-raising contributions
      - Mello-Roos Community Facilities Act
      - Special taxes
      - Benefit Assessment Districts
      - State and Federal grants and loans
      - Donations, endowments or trust funds

   c) Implement the parkland dedication ordinance with in-lieu fee provisions where developers contribute on a per unit basis.

   d) Establish a dedication program where gifts of parkland and/or recreational facilities may be accepted.

   e) Consider the use of eminent domain only where there is insufficient vacant land and where the need for parks and recreation facilities has been identified.

f) Establish the administrative and legal mechanisms to allow for the creation of benefit assessment districts, community facilities districts, and special taxes, particularly for the development of community centers.

g) Utilize general funds for park acquisition, development and maintenance in the following instances:

- Where developer's fees and grant funds are insufficient to purchase land for parks;

- Where residents of low income areas cannot afford to contribute to benefit assessment districts for acquisition, development or maintenance.

2. Consider recreational programming opportunities when developing park sites.

a) Work with the private sector to promote: a) the development of more outdoor recreation and sports programs for children and adults; and b) the development of private and commercial recreation facilities under lease or concession agreements.

b) Communicate with civic organizations, special interest groups, and individuals to seek volunteer program leadership.

In evaluating programs and park design, include the following:

- Periodic reports on level of service and service demand at existing facilities;

- Periodic public hearings regarding the adequacy of parks and recreation services and facilities;

- Periodically, do community surveys and market analyses to assess needs and demands.

c) Coordinate park programming with the City of Bakersfield's Specific Trails Plan.

3. Establish a program of design and improvement review, landscape development, and maintenance of parks, recreational buildings, and community facilities.

4. Follow procedures outlined in the Kern River Plan Element for designating multiple purpose areas for recreation use within the Kern River Plan area.

5. Review park and recreational facility proposals and programs on a regular basis to ensure complementary - as opposed to duplicative - services, programs, and facilities.

6. Work with the police and sheriff's departments to promote enforcement of all laws regarding public safety, littering and drinking in public parks.

7. Meet with school districts to discuss possible joint use of school facilities for public recreation.

8. Discuss with all appropriate government agencies the possible establishment of an interjurisdictional body whose function is to:

    a) Coordinate the development and maintenance of parks and recreational facilities with other public services.

    b) Monitor consistency of all planning documents which govern park and recreation development.

9. Modify the subdivision and building ordinances to:

    a) Require that local parks be developed at a minimum rate of 2.5 acres per 1,000 population.

    b) Allow developers (within the city) neighborhood park credit as follows:

        1) Up to seven tenths (0.7) of one acre per 1,000 population credit for on-site recreation or park-like development in P.U.D.s, open spaces, or publicly owned lands;

        2) Up to one and one-half (1.5) acre per 1,000 population credit for on-site recreation or park-like development located within land encumbered with electrical transmission line easements and incorporated as a functional design component of the residential development.

    c) Require developers to show park locations on development plans.

    d) Establish as a target mini-parks and neighborhood parks within the City of Bakersfield's jurisdiction be accessibly located within three-quarters of a mile of residents they are intended to serve.

    e) Require, where feasible, parks be developed with the following minimum acreage standards:

Mini-parks	2.5 usable acres
Neighborhood Parks	10.0 usable acres
Community Parks	20.0 usable acres;

f) Allow neighborhood park acreage requirements to be met by community parks when community parks are within or at boundaries of neighborhoods.

g) Neighborhood parks may range in size from 6 to 10 acres at the discretion of the Director of Recreation and Parks. Reason for a size less than 10 acres may include Master park planning for a given area, land availability in areas with fragmented ownership or restrictions to a typical park service area.

10. Conduct studies in order to evaluate the feasibility of the following:

a) The use of publicly-owned lands and utility rights-of-way as public open space.

b) The inclusion of new regional parks as a component of existing and proposed groundwater recharge areas.

c) A recreation and land management program allowing for the generation of supplemental revenue to offset the cost of necessary further land acquisition, development, and operational costs.

11. Update and implement the Bikeways Master Plan adopted by the City of Bakersfield and County of Kern. Periodically review and update the City of Bakersfield's Specific Trails Plan.

12. a) To expand and enhance Central Park, pursue the assistance of adjacent property owners, civic organizations, special interest groups, and interested individuals in the preparation of a Central Park master plan. The master plan should reflect the ideas expressed for the park in the May 11-17, 2001 Downtown Design Charrette Report.

b) Pursue the adoption of a Central Park master plan.

CHAPTER XII – KERN RIVER PLAN ELEMENT

The Kern County Board of Supervisors adopted the Kern River Plan Element on July 22, 1985,* as a separate document. That document is incorporated, in full, by reference.

*Resolution No. 85-443

CHAPTER XIII – HISTORICAL RESOURCES ELEMENT

CHAPTER RESERVATION – CITY OF BAKERSFIELD

Oversized Map or Foldout not scanned.

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